

City of Fairfax, Virginia

VSMP GENERAL PERMIT for Small Municipal Separate Storm Sewer Systems Permit # VAR040064

YEAR 1 ANNUAL REPORT

July 2013 -June 2014



Public Works - Stormwater 10455 Armstrong Street Room 200 Fairfax, VA 22030 October 1, 2014

VSMP GENERAL PERMIT for Small Municipal Separate Storm Sewer Systems Permit # VAR040064

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Fairfax MS4 Permit Requirements, October 1, 2014

Introduction

In accordance with guidance from the Department of Environmental Quality(DEQ), an annual report is hereby submitted for the City of Fairfax General Permit for Small Municipal Separate Storm Sewer Systems (MS4).

This report presents the information outlined in the guidance by DEQ for permit compliance. A spread sheet is provided showing activities being conducted under each of the six minimum control measures required for the MS4 program. Several of the activities have supporting documents which are provided in the Appendices C-1 through C-6, and Appendix D.

a. Background Information

- 1) City of Fairfax General Permit Number # VAR040064.
- 2) Annual Report Permit Year one: July 1, 2013 to June 30 2014.
- 3) The signed registration statement is included in Appendix A of the report.

b. Status of Compliance

The status of compliance with the permit conditions, and assessment of the appropriateness of the of the identified best management practices, and progress toward achieving the identified measureable goals for each of the six minimum control measures is contained in the Appendix B spreadsheet.

c. Results of Information Collected

The City began a stream monitoring program in 2008, which is conducted by students from the George Mason University Campus in the City of Fairfax. The monitoring sites and results from the stream monitoring program were on hold for the June 2010- July 2011 term, but have been reinstated for the 2012-2013 and 2013-2014 permit cycles. Data has been collected to date to determine trends and are included in the report.

d. Planned Storm Water Activities

Storm water activities planned for the next reporting cycle are as follows:

- 1. City annual inspection for privately owned SWM/BMP facilities within the City of Fairfax seen in Appendix A Table 5.5.
- 2. Illicit discharge enforcement seen in Appendix A Table 3.6.
- 3. Street Sweeping
- 4. Northfax Storm Drainage (Engineering and Design)
- 5. Storm Drain Marking Program Appendix A Table 1.2
- 6. Replacement of failing galvanized storm drainage systems
- 7. Replace pipes based on 2012 video inspection
- 8. Driveway pipe replacement program
- 9. TMDL action plan
- 10. Old Town Drainage project
- 11. Storm drainage outfall maintenance
- 12. Storm sewer lining rehabilitation
- 13. Neighborhood Drainage Projects
- 14. Daniels Run Stream Restoration Construction
- 15. Burke Station Road storm sewer design

- 16. McLean Ave Drainage Improvements
- 17. Scott Drive Drainage Improvements
- 18. Cedar Ave Drainage Improvements
- 19. Roberts Rd. and Forest Ave Drainage Improvements

e. Program Changes

The City has implemented a city-wide BMP inspection program for both private and public facilities. In May 2014 the first city- wide inspections were performed by an outside consultant.

f. Reliance on Other Entity

The City of Fairfax will not be relying on any other entity to satisfy any permit obligation.

g. Replacement Programs

The City does not intend to replace any of the Minimum Control Measures shown in the general permit.

h. Section 1 B 9 requirements:

There have been no updates completed to the MS4 Program Plan. The new information regarding the TMDL, WLA was updated in the 2010-2011 permit cycle, and is ongoing.

i. Illicit Discharges Identified:

The number of illicit discharges identified in Appendix B.

j. Land Disturbing Activity:

Information on regulated land disturbing activities is shown in Appendix C-4.

k. Stormwater Management Facilities:

All known permanent stormwater management facilities in the MS4 permitted area of City of Fairfax are shown in spread sheet in Appendix C-5.

l. Agreements:

There are no new or terminated signed agreements between City of Fairfax and any third party to implement all or portions of the permit's minimum control measures.

m. Written comments:

I do not know of the existence of any written public comments received during the public comment period regarding the MS4 Program Plan.

APPENDIX ASigned Certification Statement



10455 Armstrong Street Fairfax, VA 22030-3630 Department of Public Works (703) 246-6330 (703) 591-5727 FAX

October 1, 2014

Susan Mackert
Water Permit Writer, Senior II
Regional Industrial Storm Water Coordinator
Virginia Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

RE: VSMP General permit for small MS4s, VAR040064, City of Fairfax

Dear Ms. Mackert:

In accordance with 4VAC §50-60-1240 Section II(E)(3) and its VSMP small MS4 permit, VAR040064, enclosed are two copies of the City of Fairfax Year One Annual Report. This report summarizes the City's activities taken towards meeting its measurable goals during the period of July 1, 2013 through June 30, 2014.

"I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

If you have any questions or need additional information, please do not hesitate to contact Ms. Christina Alexander of the Public Works Department at (703) 385-7810.

Robert Sisson City Manager



10455 Armstrong Street Fairfax, VA 22030 Department of Public Works (703) 273-33067 (703) 591-5727 (FAX)

Virginia Department of Transportation Mr. Roy T. Mills Location and Design Division State Stormwater Program Planner (804) 786-9013

October 2014

Subject: MS4 Permit; Notice of Potential Physically Interconnected Stormwater Systems

Dear Mr. Mills,

The City of Fairfax is a Phase II small MS4 located in Fairfax County,VA. The City of Fairfax is covered under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. (Registration VAR040064)

The purpose of this letter is to notify you of the potential interconnected stormwater systems operated by VDOT, and the City of Fairfax. Under the MS4 Permit requirements, the City of Fairfax is required to notify all downstream regulated MS4 stormwater systems, that are physically interconnected. At this time the City of Fairfax has not identified any points where the City discharges into any VDOT regulated stormwater systems, therefore this is just a notification and no action on your part is required.

If you have any questions or need any additional information please feel free to contact me.

Sincerely,

Christina Alexander

Stormwater Resource Engineer

(703)273-3067

Christina.Alexander@fairfaxva.gov



10455 Armstrong Street Fairfax, VA 22030 Department of Public Works (703) 273-33067 (703) 591-5727 (FAX)

County of Fairfax Stormwater Planning Division 12000 Government Center Pkwy. Fairfax, VA 22035

October 2014

Subject: MS4 Permit; Notice of Potential Physically Interconnected Stormwater Systems

Dear MS4 Permit Manager,

The City of Fairfax is a Phase II small MS4 located in Fairfax County, VA. The City of Fairfax is covered under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. (Registration VAR040064)

The purpose of this letter is to notify you of the potential interconnected stormwater systems operated by Fairfax County, and the City of Fairfax. Under the MS4 Permit requirements, the City of Fairfax is required to notify all regulated MS4 stormwater systems that are physically interconnected. At this time the City of Fairfax has not identified any points where the City discharges into any Fairfax County regulated stormwater systems, therefore this is just a notification and no action on your part is required.

If you have any questions or need any additional information please feel free to contact me.

Sincerely,

Christina Alexander

Stormwater Resource Engineer

(703)273-3067

Christina.Alexander@fairfaxva.gov



10455 Armstrong Street Fairfax, VA 22030 Department of Public Works (703) 273-33067 (703) 591-5727 (FAX)

George Mason University Facilities Planning Division 4400 University Dr. Fairfax, VA 22032 (703) 993-2520

October 2014

Subject: MS4 Permit; Notice of Potential Physically Interconnected Stormwater Systems

Dear MS4 Permit Manager,

The City of Fairfax is a Phase II small MS4 located in Fairfax County,VA. The City of Fairfax is covered under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. (Registration VAR040064)

The purpose of this letter is to notify you of the potential interconnected stormwater systems operated by George Mason University, and the City of Fairfax. Under the MS4 Permit requirements, the City of Fairfax is required to notify all downstream MS4 stormwater systems that are physically interconnected. At this time the City of Fairfax has not identified any points where the City discharges into any George Mason University regulated stormwater systems, therefore this is just a notification and no action on your part is required.

If you have any questions or need any additional information please feel free to contact me.

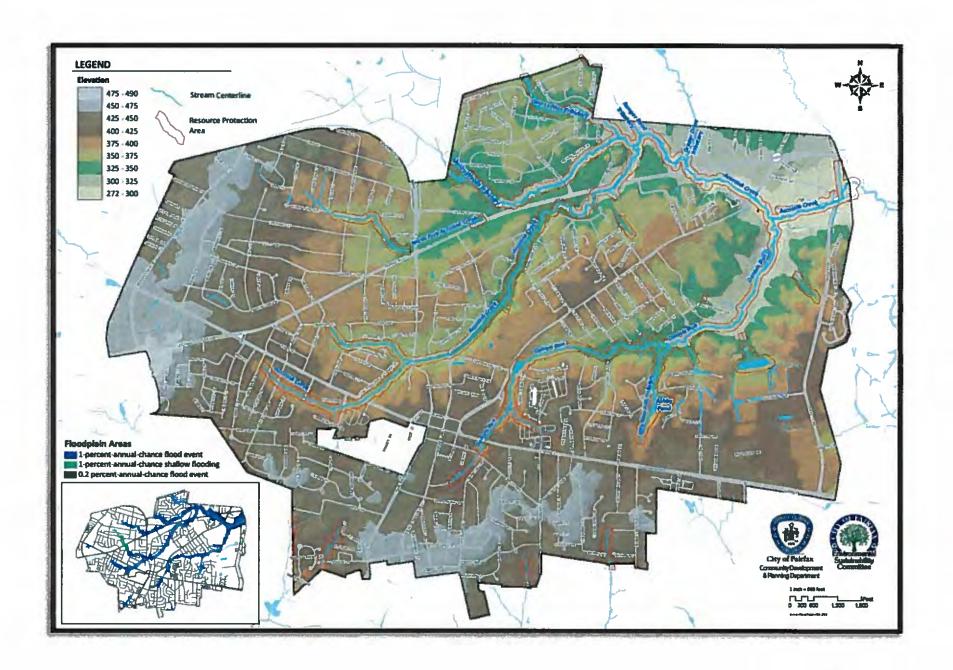
Sincerely,

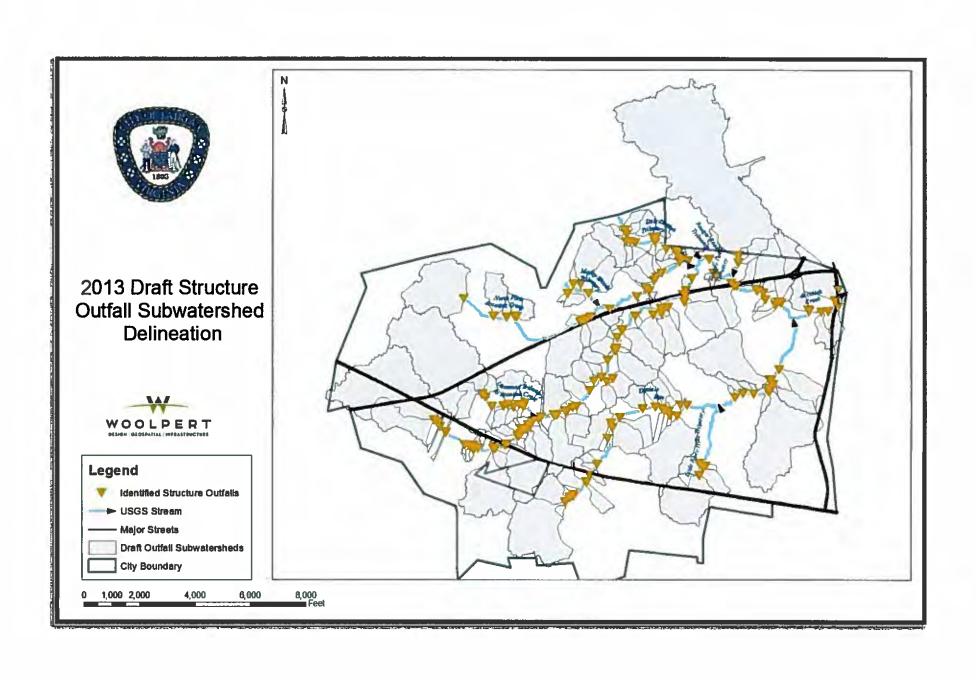
Christina Alexander

Stormwater Resource Engineer

(703)273-3067

Christina.Alexander@fairfaxva.gov





APPENDIX B

Status of Compliance with Permit Conditions – MS4 Program Updates

COMPLIANCE WITH YEAR 1 PERMIT CONDITIONS

The following section provides brief summaries of the status of the Permit Year 1 conditions for each of the six minimum control measures. Additional documentation can be found in the appendices.

C-1 Public Education and Outreach: Minimum Control Measure #1

The City promotes public education and involvement through both online newsletters and the City's website, www.fairfaxva.gov. Cityscene newsletters, published monthly by the City of Fairfax, contain articles regarding issues such as contractor debris, recycling, and leaf collection. The City's website is also an excellent educational resource. There, pages can be found addressing resident involvement in protecting water resources, energy saving tips for homeowners, as well as stormwater and stream information. MS4 permits submitted since 2009 are also available on the site.

C-2 Minimum Control Measure #2 - Public Participation

The City encourages public participation. Fairfax is a member of the Northern Virginia Clean Water Partners to prevent pollution and manage stormwater. We strive to be a "green" city, and the Environmental Sustainability Committee meets the first Wednesday of every month to help the City continue to move in a sustainable direction. The City promotes volunteer work, and every year they hold a Stream Spring Cleanup we well as a Fall Festival promoting environmental awareness. Our website outlines different BMPs required of private stormwater facilities as well as a Watershed Management Plan. They participate in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP) and have adopted the Chesapeake Bay ordinance.

C-3 Minimum Control Measure #3 – Illicit Discharge Detection and Elimination

Woolpert has incorporated a potential template in this report for illicit discharge screening procedures, but the IDDE review will be completed by another consulting firm. This template can be found in Section I of the report titled *Fairfax MS4 Permit Requirements*, found in Appendix D of this document.

Citizens are told to report illicit discharges to the City of Fairfax Fire Marshall or the Police Department. Contact information can be found on the City's website. A spill or release report is then completed and the problem is addressed.

C-4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control

The City of Fairfax provides the following forms for construction sites through the Department of Public Works:

• Inspection Reports.

- Notice to Comply,
- Stop work Order,
- Notice of Work Permit Suspension, and
- Erosion and Sediment Control Ordinance Summons.

Land Disturbance Permits and BMP agreements are to be approved by the City.

C-5 Minimum Control Measure #5 – Post-Construction Stormwater Management in New Development and Re-Development

The City of Fairfax has numerous planned projects for FY 2013 and 1014, including:

- Dog Park Design and Construction
- Recycling Containers and Equipment for Parks
- Storm Water Pipe Deficiencies Identified During 2012 Inspection
- Video Inspection of Storm Lines
- Storm Drainage Repair for Paving Schedule
- Storm Drain Maintenance
- Storm Sewer Lining Rehabilitation
- Replacement of Failing Galvanized Storm Drainage Systems
- Storm Drainage Outfall Maintenance & Repair
- Driveway Pipe Replacement Project
- Municipal Separate Storm Sewer System (MS4)
- Chesapeake Bay TMDL Action Plan
- BMP/SWM Inspection
- BMP for Property Yard
- Assembly Drive Drainage Improvements
- Old Town Drainage and Water Main Improvements
- Park Road and Fern Street Drainage & Road Improvements
- McLean Avenue Drainage Improvements
- Cedar Avenue Drainage Improvements
- Roberts Road & Forest Avenue Drainage Improvements
- Flood Study Foxcroft Colony & Mosby Woods Condos
- Stream Evaluation and Restoration
- Fairfax Blvd. & Oak St. Storm Drain Maintenance
- Improvement Along Burke Station Road
- Scott Drive Road Improvements
- Northfax Storm Drainage & Intersection Improvements

Performance measures for FY 1013-2014 can be found on the City's website and are included in Appendix C-5 of this report. The City has sample letters to owners regarding annual maintenance as well as example Inspection Reports and Zoning Enforcement forms available.

C-6 Minimum Control Measure #6 – Pollution Prevention/Good Housekeeping for Municipal Operations

Woolpert researched high priority facilities using the City's GIS records. The only high priority facility identified in the City of Fairfax is the property yard at the public works facility. The yard, covering approximately 11 acres, contains 17 different buildings. A GIS map of this property can be found in *Fairfax MS4 Permit Requirements*, located in Section II in Appendix D of this report. A GIS analysis was also performed to determine all lands owned by the City where nutrients are applied to a contiguous area greater than one acre. The following properties, including city owned parks, schools, and public works facilities, met the area criteria and will need a nutrient management plan:

Property Name	Acreage (approximate)	Location
Ashby Pond Conservatory Site	4	38°50'52.1"N 77°17'10.3"W
Country Club Hills Commons	8	38°51'41.0"N 77°17'32.9"W
Dale Lestina Park	8	38°52'07.8"N 77°17'48.0"W
Daniels Run Elementary School	14	38°51'08.7"N 77°17'45.0"W
Draper Drive Park	11	38°51'58.1"N 77°17'02.5"W
Daniels Run Park	48	38°51'05.3"N 77°17'09.1"W
Fairchester Woods Park	1	38°51'32.1"N 77°19'15.2"W
Fairfax High School	47	38°51'36.5"N 77°17'10.2"W
Gateway Regional Park	3	38°51'43.8"N 77°16'15.2"W
Green Acres Center	10	38°50'03.6"N 77°18'09.4"W
Jester Property	3	38°50'25.2"N 77°19'05.9"W
Kutner Park	10	38°51'24.0"N 77°19'44.5"W
Lanier Middle School	19	38°51'36.6"N 77°19'39.1"W
Pat Rodio Park	4	38°51'12.7"N 77°18'48.2"W
Property Yard	11	38°51'37.3"N 77°16'18.4"W
Providence Elementary School	17	38°51'49.4"N 77°19'33.5"W
Providence Park	17	38°50'21.4"N 77°19'02.8"W
Ranger Road Park	7	38°51'57.0"N 77°17'12.7"W
Ratcliffe Park	3	38°50'36.9"N 77°18'01.4"W
Rebel Run Property	4	38°51'45.5"N 77°17'22.0"W
Shiloh Street Park	6	38°51'49.2"N 77°18'12.6"W
Stafford Drive Park	14	38°51'50.2"N 77°17'29.3"W
Stafford East Park	9	38°51'51.7"N 77°17'25.6"W
Ted Grefe Park	1	38°50'15.2"N 77°17'28.1"W
Thaiss Memorial Park	4	38°51'38.3"N 77°16'10.9"W
Van Dyck Park	10	38°51'13.0"N 77°17'56.6"W
Westmore Elementary School	10	38°50'53.2"N 77°19'39.2"W
Willcoxon Park	1	38°51'50.8"N 77°16'48.6"W

A map of these areas is included in Section III of Fairfax MS4 Permit Requirements, located in Appendix D.

Woolpert created a training schedule and program, which included determining employees and positions to receive training, as well as a schedule of training events. The training will be based on the biennial training starting in Year 2 (July 1, 2014 – June 30, 2015.) The schedule is located in Section IV of Appendix D of this report.

The City of Fairfax encourages recycling and waste reduction. A recycling rate report is completed every year, and the city collects refuse and recyclable items from all single family homes once a week at no charge. Businesses are also required to provide a recycling system for their occupants, employees, and vendors. Leaf pickup is also provided by the City. Literature and regulations regarding recycling procedures can be found on the City's website.

Table # 1: Public Outreach and Education

BMP	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
1.1	Stream Monitoring	Collect data to produce a report that shows trends in stream water quality; publish annual report.	# of reports distributed.	Public Works	Annually	Stream monitoring data	Quarterly Monitoring done
1.2	Storm Drain Marker Program	Mark all storm drain inlets in the City of Fairfax.	# of storm drainage markers distributed	Public Works	Annually	Page from City website: Photo of storm drain marker; List of residential subdivisions	Most of the storm drain inlets in residential subdivisions are marked
1.3	City of Fairfax Watershed Management Plan	Post document on City website	# of investigations by public	Public Works, Community Development Planning Department	Annually	Executive Summary	1,766 total number of hits on new City Stormwater webpage
1.4	Educational Material on proper lawn fertilizer techniques	Public education	# of investigation by public, # of hits on city website, # of circulation of monthly newsletter	Community Development and Planning	Annually	Page from City website, monthly newsletter	Newsletter was mailed to 500 people and 2000 copies were placed at public buildings 1,766 total number of hits on new City Stormwater webpage
1.5	Additional Public Education Material	Public Education	# of mailing, monthly newsletter, # of emails, # of eMAS, 30 Media	Public Works/ Community Relations	Monthly	City Monthly Newsletter	Newsletter was mailed to 500 people and 2000 copies were placed at public buildings 1,766 total number of hits on new City

BMP	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
							Stormwater webpage
1.6	Additional Public Education Material	Public Education	# of impressions and views	Public Works	monthly	IN-Banner Recap "Follow the Rubber Ducky"	528,000 Banner impressions, 300 website, 3,502 ads shown
1.7	Additional Public Education Material	Public Education	# of impressions and views	Public Works	monthly	TV ads	3.1 Million impressions, 300 clicks
1.8	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with section I E of 4VAC50-60- 1200	Public Works	Annually	Annual Report	Compliance with this measurable goal is accomplished by submitting this report.

Table # 2 Public Involvement and Participation:

BMP	BMP Description	Measureable Goals	Metric	Responsibl	Time	Associated	FY 2014 Status
				e Party	Line	Document	
2.1	Storm Drain Marker Program	Mark all storm drain inlets in the City of Fairfax.	# of storm drainage markers distributed	Public Works	Annually	Page from City website: Photo of storm drain marker; List of residential subdivisions	Most of the storm drain inlets in residential subdivisions are marked
2.2	City of Fairfax Watershed Management Plan	Post document on City website	# of investigations by public.	Public Works	Annually	Executive Summary	On going
2.3	Information posted on city website about protecting the environment, watershed management and recycling	Inform City residents about ways that can participate in protecting the environment, pollution prevention and proper waste disposal.	# of inquirers into city website: environment, watershed management and recycling; # of flyers distributed to City residents recycling and waste disposal.	Public Works	On going; Annually	Pages form City website on Environmental protection, recycling and waste disposal poster.	2,487 hits on City website on Environment and Recycling; 10,000 flyers distributed to City residents.
2.4	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with section I E of 4VAC50-60-1200	Public Works	Annually	Annual Report	Compliance with this measurable goal is accomplished by submitting this report.

Table # 3: Illicit Discharge Detection and Elimination

ВМР	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
3.1	Storm Sewer System Map	Map all known inlets and outfalls.	Number of outfalls and inlets mapped	Public Works	Ongoing		145 outfalls and 300,000 feet of pipes already mapped into storm sewer layer of City's GIS System Appendix C-5
3.2	Storm sewer line and structure maintenance	Provide uninhibited flow for storm water through City drainage system.	Feet of storm sewer, number of structures rehabilitated.	Public Works	Annually		7,840, hours PM, 415' of storm main repaired, 12'new storm main Appendix C-5
3.3	Illicit Discharge Detection and Elimination	To use the City's Storm Sewer GIS Layer to track illicit discharges	Number of illicit discharges detected	Code Administration, Zoning Administrator and Public Works	Ongoing		5 illicit discharges detected.
3.4	Illicit Discharge Detection and Elimination Enforcement Procedures	Issue summons and prosecute violators for negligence or failure to properly report spills	Number of summons issued	Code Administration (Fire Marshal)	As needed	Summons	0 summons and 0 fines were issued.
3.5	Report all spills that reach state waters to DEQ and DCR	Ensure that responsible party reports the spill to Department of Environmental Quality Pollution Response Program (PREP)	PREP Number Obtained	Code Administration (Fire Marshall)	In accordance with state regulations	Internal Report	2 incidents were reported to DEQ during FY 13/14

Table # 3: Illicit Discharge Detection and Elimination

ВМР	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
3.6	Investigate spills and releases from small MS4 operated properties to determine cause and require corrective action to prevent future occurrence.	Completion of internal reports documenting event and corrective action.	Number of reports	Code Administration (Fire Marshal)	As needed	Internal Report	5 incidents were investigated and internal reports filed in FY 13/14
3.7	Prevent or minimize the discharge of hazardous substances and oil into the storm sewer system.	Provide hazardous waste disposal facility to city residents to prevent these materials from getting into the storm water system.	Tons of hazardous collected	Operations Division	Annually	City DEQ Recycling Report	See City DEQ Report on recycling in appendix C-6 attached
3.8	Sanitary sewer overflows	Prevent sanitary sewer overflows.	Number of sanitary sewer overflows	Utilities	Annually		1 sanitary sewer overflows in FY 13/14
3.9	Sanitary Sewer Improvements	Provide uninhibited flow for sanitary sewer waste from city homes to treatment facility.	Feet of sanitary sewer lines and vertical feet of sanitary sewer manholes rehabilitated.	Utilities	Annually		5,000 of sanitary sewer lines rehabilitated
3.10	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with section I E of 4VAC50-60-1200	Public Works	Annually	Annual Report	Compliance with this measurable goal is accomplished by submitting this report.

Table # 4 Construction Site Stormwater Runoff Control:

BMP	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
4.1	City of Fairfax Erosion and Sediment Control Ordinance NO 2006 – 17 of the City Code	Provide site plan review and on site erosion and sediment control inspections	Number of plan reviews, number of inspections	Public Works	Annual ly	Erosion and sediment control enforcement documents	362 Erosion and sediment control inspections
4.2	VSMP Permits	Require construction site owners to and operators to obtain a VSMP permit from the state for construction activities that result in land disturbance greater than an acre.	Number of permits collected	Public Works	Ongoin g	Annual Erosion and Sediment Control Report	7 VSMP permits inspected and collected.
4.3	Training	Require that City inspectors, plan reviewers and program administrator obtain the appropriate certification as required under the Erosion and Sediment Control Law	Certifications obtained	Public Works	Ongoin g	Copies of certificates	2 certified inspectors, 1 plan reviewer, 2 program administrator
4.4	Reporting	To tract the number of land disturbing plans and acres disturbed.	Number of plans and acres disturbed	Community Development and Planning	Annual ly	Land disturbing plans and permits quarterly reports.	7 plans and 2.54 acres disturbed.
4.5	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with section I E of 4VAC50-60-1200	Public Works	Annual ly	Annual Report	Compliance with this measurable goal is accomplished by submitting this report.

Table # 5: Post Construction Stormwater Management in New Development and Redevelopment:

ВМР	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
5.1	Public Facilities Manual	The city provides information to developers in the Public Facilities Manual (PFM) regarding stormwater and BMP design and requirements. The PFM also references the VA Stormwater Management Program and Handbook as additional resources.	PFM updates	Department of Public Works	Updated as required.	Public Facilities Manual	No updates this year. Update in 2015.
5.2	Stormwater Management Ordinance	The city's Stormwater Management Ordinance includes provisions to meet the State stormwater and Chesapeake Bay Program requirements.	Ordinance updates	Planning Department, Public Works	Updated as required.	Stormwater Management Ordinance	New Stormwater Ordinance was approved 12/2013 and implemented 07/2014.
5.3	BMP and SWM Maintenance	The city requires that all facilities be maintained to function as designed. This is accomplished through the requirement that maintenance plans be provided on the approved site plan along with executed stormwater maintenance agreements. In addition, property owners are required to submit an inspection report annually for all BMP facilities.	BMP maintenance plans BMP maintenance agreements	Planning Department	Program is evaluated monthly at the site plan meetings.	Site Plans BMP maintenance agreements	Updated weekly. 4 agreements executed during FY 13/14.
5.4	SWM Maintenance	The city requires that all facilities be maintained to function as designed. This is accomplished through the requirement that maintenance plans be provided on the approved site plan. In addition, property owners are required to submit an inspection report annually for all stormwater facilities.	SWM maintenance plans	Public Works	Program is evaluated monthly at the site plan meetings	Site Plans	VSMP program began July 1,2014

Table # 5: Post Construction Stormwater Management in New Development and Redevelopment:

ВМР	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
5.5	BMP Tracking	Track all known permanent stormwater management facilities that discharge into the regulated small MS4 and submit the following information: (a) type of structural stormwater management facility installed as defined in the Virginia Stormwater Management Handbook; (b) Geographic location (HUC); (c) where applicable the impaired surface water that the stormwater management facility is discharging into; (d) number of acres treated.	Number and type of BMP location, watershed, acres treated, impaired waters	Planning Departments	Annually	BMP Spreadsheet	See BMP Spreadsheet attached in Appendix C-5.
5.5	SWM Tracking	Track all known permanent stormwater management facilities that discharge into the regulated small MS4 and submit the following information: (a) type of structural stormwater management facility installed as defined in the Virginia Stormwater Management Handbook; (b) Geographic location (HUC); (c) where applicable the impaired surface water that the stormwater management facility is discharging into; (d) number of acres treated.	Number and type of SWM location, watershed, acres treated, impaired waters	Public Works	Annually	SWM Spreadsheet	See SWM Spreadsheet attached in Appendix C-5.
5.6	BMP/SWM Enforcement	To have all BMP/SWM facilities in the City inspected annually. Owners of BMP/SWM facilities are given violation notices and enforcement action taken if BMP/SWM inspection report forms are not submitted by due date.	Number of violation notices mailed	Planning Department	Reviewed weekly at site plan meetings.	Violation notices	0 violations sent out during this permit period
5.6	Stormwater Program Enhancements	The City of Fairfax will continue to enhance stormwater programs to reduce the impacts resulting from new and redevelopment projects on the city's streams. The City of Fairfax will continue to encourage the use of new and innovative stormwater strategies such as low impact development and environmental site design through the site plan process.	Innovative stormwater/BMPs approved on site plans.	Public Works and Planning Departments.	Process is continuous along with site plan reviews.	Stormwater/ BMPs Spreadsheet.	See BMP/SWM Spreadsheet attached in Appendix C-5.

5.7	Stormwater Evaluation and Assessment	Evaluate, collect data, and inspect 30,000 ft of storm pipe throughout the City of Fairfax	Feet of Pipe	Public Works	Annually	Annual Report	Phase II was completed in 2014
5.8	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section IE of 4VAC50-60-1200.	Public Works	Annually	Annual Report	Compliance with this measurable goal is accomplished by submitting this report.

Table # 6: Pollution Prevention/Good Housekeeping for Municipal Operations:

ВМР	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
6.1	Leaf Collection	Prevent leaves from getting into streams and causing blockages, decaying and producing nutrients.	Tons of leaves collected	Operations Division	Annually	Leaf collection map and schedule, City of Fairfax DEQ Recycling Report.	1,407 tons of leaves collected in 2013
6.2	Yard Waste Collection	Collection of yard waste before it can be transported to the streams by storm water runoff.	Tons of yard waste collected	Operations Division	On going	Waste disposal poster from city website.	2,838 tons of yard waste collected in 2013.
6.3	Pollution Prevention Information posted on city website and flyers distributed to City residents	Inform City residents about pollution prevention and proper waste disposal.	# of inquirers to city website on recycling and disposal, and # of flyers distributed to City residents	Operations Division	On going	Page form City website on recycling and waste disposal poster.	3,500 flyers on waste disposal distributed to City residents
6.4	Used Antifreeze Collection	Provide hazardous waste disposal facility to city residents to prevent these materials from getting into the storm water system.	Tons of antifreeze Collected.	Operations Division	Annually	City DEQ Recycling Report	76 tons of antifreeze collected in 2013
6.5	Used Oil	Provide hazardous waste disposal facility to city residents to prevent these materials from getting into the storm water system.	Tons of used oil collected	Operations Division	Annually	City DEQ Recycling Report	420 tons of used oil collected in 2013
6.6	Education and Training	Train City employees in pollution and prevention and good house keeping	Number of courses provided and number of employees trained	City Risk Manager	Annually	Training Documents	On- going
6.7	Education And Training	Train City employees in confine space entry.	Number of employees trained	City Risk Manager	On going	Training Documents	On going.

BMP	BMP Description	Measureable Goals	Metric	Responsible Party	Time Line	Associated Document	FY 2014 Status
6.8	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with section I E of 4VAC50-60- 1200	Public Works	Annually	Annual Report	Compliance with this measurable goal is accomplished by submitting this report.

APPENDIX C-1

Exhibits for Minimum Control Measure #1- Public Outreach and Education

Cityscene-July 2013

Cityscene- October 2013

Cityscene- November 2013

Cityscene- December 2013

Cityscene- January 2014

Cityscene-February 2014

Cityscene- March 2014

Cityscene-April 2014

Cityscene- May 2014

Cityscene- June 2014

Fairfax City Water Quality Monitoring- George Mason University

How Citizens Can Help Protect The City's Streams- City of Fairfax Website

What Kids Can Do To Protect Our Water Resources- City of Fairfax Website

Protecting Water Resources- City of Fairfax Website

Energy Saving Tips For Homeowners- City of Fairfax Website

Stormwater Information- City of Fairfax Website

City of Fairfax Streams- City of Fairfax Website

MS4 Permit Information- City of Fairfax Website

Old Town Open Space Plans Scheduled for Approval July 23

The City Council is scheduled to approve proposed improvements to three parcels in Old Town Fairfax, including the expansion of Kitty Pozer Garden, at its July 23 City Council meeting.

The city has contracted with consultants to create plans based on concepts approved by the City Council. The parcels are in central Old Town, including Kitty Pozer Garden and George Mason Square, as well as improvements at parking lots adjacent to these properties.

The consultants also provided plans for improvements at the parking lot and

at the corner of Route 236/Main Street and East Street (former Amoco site) and proposed a masonry-faced concrete wall along the south side of North Street east of Route 123/Chain Bridge Road.

Plans for these proposed improvements are available on the city website and in the Community Development and Planning Office in City Hall Annex Room 207.

The July 23 City Council meeting is scheduled to begin at 7 p.m. in the City Hall Annex. For information, call 703-385-7930.



Toter Cans an Option for City Residents

Residents who receive trash and recycling disposal service from the city may use the larger, wheeled "toter"-type containers for the curbside disposal of yard waste, recycling or general household trash.

Please clearly identify on each container what it contains — yard waste, trash, recyclables — so refuse and recycling crews can easily and quickly remove their contents.

Also, consider marking the home address on cans to prevent loss. The city is not responsible for damaged or missing trash containers.

Please do not mix items in the cans, as the city cannot accept or dispose of mixed content, and place concrete at the curb for disposal (not in trash cans).

The city provides blue recycling bins upon request to city residents who receive recycling service from the city government.

Contractors Must Carry Away Their Debris

Contractors who work on a residence or business must dispose of their own debris, from yard waste to cement.

Recycling, Disposal Information Available

- How to Depose of Items in the City, which lists what Items may be disposed of where and how, and
- Curbside Recycling is Easter Than Ever, which lists what items the city collects in its blue curbside bins.

Information: 703-385-7837

City business owners:
stay in the knowl
Sign up for
"Business News"
via eMAS at
emas.fairfaxva.gov.



NVTC Holds Public Hearing on Proposed Regional Transportation Projects July 24

The Northern Virginia Transportation Authority (NVTA) and the City of Fairfax invite the public to learn about and comment on proposed transportation projects in Northern Virginia during a public hearing to be held at 6 pm July 24 in the City Hall Annex.

Cityscreen-12 will televise the public hearing live, and it will be replayed; see the schedule on page 5. Viewers also may watch the public hearing on the Internet; the program will be archived on the city's website under "Special Programming" and available on the city's YouTube

channel

This is the second public hearing on the matter, and NVTA will publish a final list of proposed projects on its website, www. The NoValuthority.org, by July 10. The city-related project on the original proposed list is the widening and improvements to Route 123/Chain Bridge Road from Fairfax Boulevard to Eaton Place.

Comments on proposed projects are accepted at the public hearing and via email at fp:14projects@thenovaauthority.org.

For information, call 703-385-7889

Interest-Free Loans Available for Home Improvements

Maximum Loan Amount Increased to \$250,000

After many years, homes that once were modern and efficient may no longer meet the needs of their owners.

Those who live in detached single family homes in the city who are thinking about improvements, including upgrading the residence, make it more "green" or modify it to age-in-place, may consider this program that can make home improvements more affordable.

The non-profit City of Fairfax Renaissance Housing Corporation (FRHC) makes available to qualified homeowners home improvement loans of as much as \$250,000 with no interest paid by the borrower during the first 24 months.

These loans are not income-sensitive

and are available for modernizing or repairing City of Fairfax single family homes built at least 10 years ago. Homes must display a need, such as exterior or interior deterioration, functional obsolescence or lack of amenities found in today's new homes.

The homeowner must reside at the property being renovated and must remain in the home for at least three years from the loan closing date. As much as one quarter of the loan may be required to fund exterior improvements.

FRHC is committed to improving the quality of residential neighborhoods in the city through this ongoing program.

the city through this ongoing program. For information, call 703-385-2494.

ALMANAC

Toter Cans an Option for City Residents

City residents who receive refuse/recycling service from the city may use "toter" trash cans for recycling, yard waste and other materials. Please clearly identify the content on each container (yard waste, trash, recyclables, etc.) and consider including a home address. The city provides blue recycling

The city provides blue recycling bins upon request to its recycling customers. Please note: the city is not responsible for damaged or missing trush containers.

Recycling, Disposal Information Available

The City of Fairfax has two flyers to help residents properly dispose of trash and recyclables in the city:

- How to Dispose of Items in the City, which lists what items may be disposed of where and how in the city, and
- Curbside Recycling is Easier Than Ever, which lists what Items are recycled in the blue bins collected by the city.

For a copy of the flyers, visit the city's website (click on "Refuse & Recycling" on the home page) or call 703-385-7837.

INFORMATION: 703-385-7837

Work Begins on Blenheim's Pedestrian Trail

Visitors to the Civil War Interpretive Center at Historic Blenheim soon will find it easier to navigate the

grounds, thanks to an improved pedestrian trail that leads from the interpretive center to two of the outlying buildings: the historic residence (pictured, right) and Grandma's Cottage.

The new asphalt trail, with special treatment that will keep the historic feel of the grounds, replaces the easily-eroded gravel path. The new trail is being funded by an enhancement grant from the Virginia

Department of Transportation and the Federal Highway Administration. (Photo: Chris Cohen. City of Fairfax)



FVFD Seeks Volunteers, Gives Rewarding Opportunities

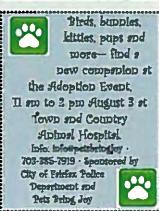
Whenever there is a fire or medical emergency in the region, the Fairfax Volunteer Fire Department (FVFD) works with the City of Fairfax Fire Department-For nearly seven decades, volunteers have worked alongside Fairfax's career firefighters.

Among the FVFD volunteer opportunities are firefighter and emergency medical technician (EMT) positions. In addition to extensive Initial training required for EMT and firefighter positions — which is at the same level of skill as their career counterparts — volunteers undergo at least 40 hours of continuing education training every year.

Along with emergency work, volunteers help with education programs, fundralising, medical standby at special events and more.

Volunteers receive many benefits, Including reduced gym membership initiation fees, free health exams and reduced taxes. Volunteers who meet established criteria pay minimal personal property tax (which currently is 1¢ per \$100 of assessed value for those who qualify).

For information, visit fairfaxvfd.com or call 703-385-7877.



City Council Approves Old Town Park Design

An interactive water feature, public plaza and plenty of green space are among the features in the public square design approved by City Council.

The square in central Old Town, adjacent to the Ratcliffe-Allison House and Old Town Hall, includes the current Kitty Pozer Garden and adjacent property.

Green spaces in the square will include lawn areas, formal and informal gardens, the Mary McCandlish Memorial Garden and ample hedges, trees and other vegetation.

Innovative and attractive stormwater management techniques, including a rain garden adjacent to the plaza and permeable brick pavers in the parking

areas, have been incorporated.

Construction is expected to begin in November and should be completed within a year.

Plans for these proposed improvements are available on the city website and in the Community Development and Planning Office in City Hall Annex Room 207.

The park's design and construction is funded in part by the balance from bonds that financed design and construction of the City of Fairfax Regional Library. The city's innovative open space funding initiative paid for the acquisition of the former Weight Watcher's site.

For Information, call 703-385-7930.

New Apps Focus on Schools, Emergency Damage Reports

Two new apps now provide information and assistance with school issues and emergency management on IOS and Android devices.

Schools app — Stay abreast of City of Fairfax Schools news and activities with the free City of Fairfax Schools app.

Users may access staff directories, school calendars, social media resources and more. For information, visit www.cliyoffairfuxschools.org or call 703-385-7910

NOVA DRT — Help emergency response agencies and local jurisdictions identify resources needed to assist residents quicker and more accurately via a new free app, Northern Virginia Damage Report Tool (NOVA DRT).

NOVA DRT allows users to report damage, complete with photos. The app will be available after September 1 for free on iTunes and Google Play. Reporting also on the Web at www.novulrt.org. For information, call 703-385-4856.

Voters Encouraged to Prepare for, Participate in November General Election

Polls will be open from 6 a.m. to 7 p.m. November 5 for the General Flection. Sample ballots will be available before the election at the General Registrar's Office and on the city's website.

To be eligible to vote November 5, voter registration applications are due by 5 p.m. October 15. Once a voter is registered, there is no need to re-register. However, voters who have moved or changed their names since the last election must update their information with the General Registrar; visit the city website or call 703-385-7890. To confirm voter registration, visit the Virginia State Board of Elections website.

Absentee voting begins September 21. In-person absentee voting is available from 8:30 a.m. to 5 p.m. weekdays (excluding holidays), as well as October 26 and November 2, at the Sisson House next to City Hall. Mailed or faxed absentee ballot applications are due by 5 p.m. October 29. The final day for in-person absentee voting is November 2.

Voters must show one of these valid IDs at the polis; Virginia voter ID card; Virginia roter ID card; Virginia driver license; military ID; federal, Virginia or local government-issued ID; employer-issued photo ID; concealed handgun permit; student ID from a Virginia institution of higher education; current utility bill, bank statement, government check or paycheck indicating the name and address of the voter; or Social Security card. Certain first-time voters need to use certain ID cards; call 703-385-7890.



Make Sure Your Trash Belongs at the Curb

The City of Pairfax crews that collect trash and recyclables are efficient, prompt and thorough.

Residents who place Items at the curb for disposal should check bags, clothing, furniture and other items with pockets, drawers and crevasses to make sure they contain no valuables.

All items placed at the curb are considered disposables by city crews and will be collected.

Trash and recyclables collected from the curb are taken to the landfill or recycling center daily — sometimes making multiple trips in a single day, depending on the quantity of disposables. Once trash and recyclable items are disposed of, the city cannot retrieve them.

Prune Trees, Bushes from Sidewalks, Roads

Property owners with trees and shrubs are asked to prune vegetation away from sidewalks and streets.

Plants should not block sidewalks, nor should they obstruct the view of traffic or signs for drivers and pedestrians from walkways or roads.

Those with curbside collection may place yard waste at the curb on their designated collection day.

Recycling, Disposal Information Available

The City of Fairfax has two flyers to help residents properly dispose of trash and recyclables in the city:

- How to Dispose of Items in the City, which lists what items may be disposed of where and how in the city, and
- Curbside Recycling is Easier Than Ever, which lists what items are recycled in the blue bins collected by the city.

For a copy of the flyers, visit the city's website (click on "Refuse & Recycling" on the home page) or call 703-293-7141.

INFORMATION: 703-385-7837



Celebrate National Preparedness Month at the

Community

Emergency Preparedness Fair Noon to 3 pm September 15

Stacy C. Sherwood Community Center

Meet representatives from Office of Emergency Management Pire Department * Police Department * George Mason University *
American Red Cross * Fairfax Health Department * National Weather Service FEMA • Volunteer in Police Service • Community Emergency Response Team

Information: www.fairfaxva.gov • oem@fairfaxva.gov • 703-385-4856

MSI Offers Workshop on Food Preservation September 10

Learn about food preservation at the George Mason University Sustainability Institute (MSI) workshop from 6:30-8 p.m. September 10 at The Pennino Building, Room 1032, 12011 Government Center Parkway. To register, visit the MSI registration page at msi.gmu.edu/registration;

Workshops and events are free; however, occasionally there may be a small fee associated if materials or supplies are provided to participants, For information, call 703-993-5301.

City Encourages Day of Service September 15-29

The City of Fairfax Joins other jurisdictions and the Northern Virginia Regional Commission in encouraging its residents and business community leaders to participate in a Day of Service September 15-29.

The goal of this event is to strengthen the region's collective communities by coming together to "feed the hungry, protect and enhance the environment, as well as strengthening our communities."

The Day of Service also helps to improve the environment through planting trees, cleaning up parks and streams, and supporting "adopt a road" campaigns.

An excellent resource for local volunteer opportunities is Volunteer Fairfax (www.volunteerfairfax.org, 703-246-3460.

SafeAssured ID Kit Appointments Available September 21

The City of Fairfax Police Department, with the Optimist Club of Central

Fairfax, will prepare SafeAssured ID kits for children by appointment from 10 a.m. to 4 p.m. September 21 at the police station, 3730 Old Lee Highway. To make an appointment, call 703-273-2889.

The SafeAssured ID System provides parents with a full-color photo ID card and a mini-CD containing digital fingerprints, photo and video of the child, and vital personal information accessible only by law enforcement.

Paper Shredding Event Scheduled September 21

Fairfax County holds free paper shredding events available to city resi-

The next one will be from 8 a.m. to noon September 21 at the Sully Governmental Center, 4900 Stonecroft Boulevard, Chantilly.

For information, visit the Fairfax County Secure Document Shredding Web page or call 703-324-5052.

City Seeks Volunteer Neighborhood Recycling Coordinators

Help improve waste reduction and recycling in the City of Fairfax by volunteering as a neighborhood recycling

Coordinators will provide their neighbors with current, cutting-edge information on recycling and waste reduction programs in the City of Fairfax.

The city will provide training and materials, including periodic e-mails with helpful tips and tricks. For information, call 703-385-7816.

Pedestrians Can Look Forward to New, Improved Paths in the City of Fairfax

Pedestrians soon will be able to enjoy two more ADA-compliant tralis

The George T. Snyder Trail will be extended across Plantation Parkway into the new Fairfax Boulevard Marketplace with funding from a proffer from the Fairfax Boulevard Marketplace and the VDOT Revenue sharing fund.

Pedestrians traveling to Thaiss Park and Gateway Regional Park will discover new connections on the Accotink Trail, thanks to the Pickett Road Trail Underpass improvements (pictured, right). Northern Virginia

Regional Park Authority has received a grant from the Regional Transportation Alternative Grant program to: install

a 12-foot wide concrete trail under the existing Pickett Road bridge over Accotink Creek; construct asphalt trail segments on the upstream side of the underpass to connect the existing Fairfax City trail system to the existing Fairfax County trail system; install two culverts to convey existing storm

drainage outfalls under the proposed trail; and install signage. (photo: Chris Cohen, City of Pairfax)



Don't Bag It! Curbside Leaf Collection Begins November 4

The City of Fairfax will offer curbside leaf collection from November 4 through December 31.

Please rake loose leaves to the curb—but do not bag them. Bagged leaves will not be collected during curbside leaf collection and the landfill will not accept them as trash.

Light yard debris (such as grass clippings and weeds) may be included in leaf piles.

However, please keep stones, branches and other large items out of leaf

piles — they damage equipment and endanger workers' safety. Help the



fuel: please have all leaves at the curb by December 24 for prompt and efficient removal.

The city is divided into six sections, and leaves are collected in rotation by neighborhood. Crews circulate through neighborhoods at least once every two weeks, often more frequently. Heavy leaf fall or inclement weather may affect leaf collection.

The city is among the only local jurisdictions to provide this service at no additional charge to its residents.

For information, call the Leaf Collection Hotline at 703-385-LEAF. Also, sign up for the "leaf collection" category on eMAS, the city's electronic message alert system — update your current subscription, or enroll at emas.fairfixwa.gov.



Cool Fireplace Ashes for Safety

Improper disposal of fireplace ashes can cause injury and property damage. Even after the fire is gone, ashes retain heat and embers for as long as three days.

Dispose of fireplace and barbecue ashes in a metal container with a tight-fitting lid (to keep out air) or leave them to cool in the fireplace for at least three days. For Information, call 703-385-7830.

When ashes are completely cold, they may be placed in the trash for disposal.

Fireplace ashes are beneficial for compost piles. Call 703-385-7837 for composting information.

Contractors Must Carry Away Their Own Debris

The city provides trash, recyclables and debris collection for city residents. Residents who have debris from do-it-yourself home improvements may place their debris at the curb for collection.

Those who hire builders and contractors — even gardeners — must make sure these contractors remove all debris from the property themselves.

The city will not dispose of refuse generated by contractors.

Recycling, Disposal Information Available

The City of Fairfax has two flyers to help residents properly dispose of trash and recyclables in the city:

- How to Dispose of Items in the City, which lists what items may be disposed of where and how in the city, and
- Curbside Recycling is Easier Than Ever, which lists what Items are recycled in the blue bins collected by the city.

For a copy of the flyers, visit the city's website (click on "Refuse & Recycling" on the home page) or call 703-293-7141.

Information: 703-385-7837

Voter Registration Continues Through October 15 Before Election

Registration Now Accepted Online for Eligible Virginians

City voters may exercise their right to vote in the November 5 General Election. Polls will be open from 6 a.m. to 7 p.m. on Election Day. Sample ballots are available at the General Registrar's Office and on the city's website.

Voter registration — To be eligible to vote in the upcoming General Election, voter registration applications are due by 5 p.m. October 15.

Eligible Virginians now may register to vote online at vate.virginia.gov. Voter registration applications also are accepted by the General Registrar (office hours are 8:30 a.m. to 5 p.m. weekdays) and at Virginia DMV customer service centers.

Virginia voter applicants must be

U.S. citizens at least 18 years of age on or before Election Day, residents of Virginia, and residents of their local precinct.

Virginia voters should keep their information current (name, address) — and update changes immediately.

Absentee voting — In-person absentee voting is available from 8:30 a.m. to 5 p.m. weekdays (excluding holidays), as well as October 26 and November 2, at the Sisson House next to City Hall. The final day for in-person absentee voting is November 2.

Mailed or faxed absentee ballot applications must be received by 5 p.m. October 29. For information, visit the city's website or call 703-385-7890.

City Code Updated to Clarify, Strengthen Hunting Ban

With an eye to public safety, the City Council in September clarified and strengthened the section of the City Code that prohibits hunting within the city's municipal boundaries. For information, call 703-385-7960.

The Commonwealth of Virginia enables municipalities to prohibit all hunting with firearms or other weapons in, or within one half mile of, any subdivision or other area of the city.

The dense population and development of the city make hunting dangerous to inhabitants throughout the city.

The City Code, however, contains an exemption for law enforcement officers and animal control officers discharging their duties.

The city has a very active and knowledgeable Animal Control Office, and those with concerns regarding wildlife in the city may call 703-385-7919.



- Cobbdale Civic Association is host-Ing Meet the Candidates Night at 7:30 p.m. October 16 at Henry Lodge Masonic Temple, 10503 Oak Place. Scheduled candidates include Sheriff, Delegate (37th District), City of Fairfax Treasurer and City of Fairfax Commissioner of the Revenue.
- Prepare for an earthquake: join the Great Southeast Shakeout at shakeout.org/southeast. At 10:17 a.m. October 17, practice what to do in case of an earthquake.
- Join area governments and businesses for Jeans Day October 18 (jeansday2013 eventbrite.com): wear Jeans and donate \$5 to the Partnership to End Homelessness.

Fall Festival

continued from front page

musical entertainment, pumpkin painting and amusement rides

The Main Stage on South Street near University Drive will feature a beer garden and live music: The Reflex (the Ultimate '80's Tribute Band) and Scythian (Rousing and Raucous Celtic and world music). Enjoy cultural performances in Old Town Hall throughout the day.

The Woman's Club of Pairfax will sell its annual Christmas omament, which this year features George Mason University's Johnson Center. Cost is \$10.

Check out the Open House at Fire Station 3, 4031 University Drive. Free shuttles will run from

Fairfax High School, 3501 Rebel Run. and from George Mason University, 4400 University Drive

Handicapped and bicycle parking will be available in parking lots at North Street and Old Lee Highway. Main and East streets and adjacent to



Fire Station 3. Festival rain date is October 13. For information, visit the city's website or call 703-385-785R

Personal Property Taxes, Vehicle Decals Due October 7

Personal property tax bills and vehicle decal bills are combined on one form, and payments for both are due by

October 7. Payments received or postmarked after October 7 will incur a 10 percent penalty plus Interest.

To avoid long lines and delays, promptly check the bill and report any changes to the Commissioner of the Revenue at 703-385-7880.

If the bill requires no changes, please mail the payment promptly.

Citizens may pay taxes and decal fees online through the city's website using a credit card or e-check. Credit card payments are charged an additional fee by the service provider. There is no additional fee for e-checks.

The offices of the Treasurer and the Commissioner of the Revenue In City Hall are open weekdays from 8:30 a.m. to 5 p.m., as well as:

• Saturday, October 5, 9 a.m. to noon

• Monday, October 7, 5-7 p.m.

Those whose payments were made online or by mail will receive their decals by mail after October 17. Decal enforcement begins November 16. Decals are required to be displayed on vehicles garaged in the city

The 2013 personal property tax rate is \$4.13 per \$100 of assessed value. The com-

monwealth will pay 55.05 percent of up to \$20,000 of assessed value for personal use vehicles. The tax reduction appears on tax bills as a credit. Citizens must pay the net amount due on the tax bill. Decals cost \$33 each for cars and trucks and \$18 each for motorcycles.

For information on tax payments, call 703-385-7900. For personal property tax information, call 703-385-7880.

Recycling Volunteers Sought for Fall Festival October 12

Recycling enthusiasts, here's your chance to help the city launch a new recycling program; dedicated recycling bins at the Fall Festival October 12.

Volunteers will help set up and break down the recycling containers and monltor their use during the festival, making sure festival patrons use them properly and that they're emptied promptly.

Volunteers also will have an opportunity to speak with festival-goers about the city's recycling program.

If this sounds like the opportunity for you, consider signing up for a three-hour shift between 8 a.m. and 7 p.m. October 12. A sign-up form is available on the Environmental Sustainability page on the city's website, or call 703-385-7816.

Volunteers Sought for Advisory Boards

Volunteers Sought for Advisory Boards

Board of Bailding Code Aspectis (two vacancies: mechanical/plumbing, lire protection representative
flears appeals to the virginal funitorin Statewice Statisting Code and Virginal Statistics of the Prevention and makes representatives to the batisting of meaning the statistics of Real Estate Assessments (one vacancy for city resident) — Hears appea assessed under or real estate. Court appointed, Meets as needed.

Commission on Organ Tissue Bonation and Transplantation (one vacancy for city resident) — Hear appearance Committee (one vacancy for city resident or business representative) — Commission on Organ Tissue Bonation and Transplantation (one vacancy for city resident) — Help anteriors of the need for donations.

Commission on Organ Tissue Bonation and Transplantation (one vacancy for city resident) — Conventite city Asportance Committee (one vacancy for city resident) — Sorves as direct for the local programs with physical and sensory distributes and implements the Americans Disabilities Act.

Human Services Committee (one vacancy for city resident) — Advises local government as the service needs of persons with physical and sensory disabilities and implements the Americans Disabilities Act.

Human Services Committee (one vacancy for city resident) — Offers forum for city's representative regions boards and commissions. Addresses emerging brends and times human Services needs in the of hartar. Heets on the third Honday of January, April. July and Cottober.

Personnel Advisory Board (one vacancy for city resident) — Gries forum for city's representative regions boards and commissions. Addresses emerging brends and times human Services needs in the of hartar. Heets on the third Honday of January, April. July and Cottober.

Personnel Advisory Board (one vacancy for city resident) — Cottober.

Personnel Advisory Board (one vacancy for city resident) — the city as needed.

Applications will be considered at an asponding City Couscil meeting following submission.

Interest





City Government Offices November Closures

Veterans Day — On November 11, city government offices will close in observance of Veterans Day, as will the General District Court. The Fairfax Museum and Visitor Center (703-385-8414) will be open November 11. The CUE Bus (703-385-7859) will run on a modified weekday schedule November 11

Thanksgiving — City government offices will close November 28-29 in observance of Thanksgiving.

The General District Court will close at noon November 27 through November 29.

The museum and Historic Blenheim will close November 28 and open November 29.

The CUE Bus will not run November 28 and run on a modified weekday schedule November 29.

November Holiday Trash Collection Schedule

- Veterans Day

 Monday, 13 [11] no collection

 fuesday, 11 [12] regular Monday and linesday (onles collected)

- Monday, 11/25 regular collection Tuesday, 11/26 regular luesday and Wednesday routes collected

 • Wednesday, I 1/27 regular Thursday
- nid Inday routes collected

 Thursday, 11/28, no collection
- 1rid iv. 11/29 no collection Information: 701-185-7837. Receive service information via eMAV sign up on the cttr swibite

if you're new to the city, welcome! Call 703-385-7800 for new resident information.

Don't Bag It! Curbside Leaf **Collection Begins November 4**

et rakes ready: the city will provide residential curbside leaf collection from November 4 through December 31.

Please rake loose leaves to the curb. Bagged leaves will not be collected during this time: the landfill will not accept them as trash.

Light yard debris (like grass clippings, weeds) may be included in leaf piles. Please keep stones, branches and other

large Items out of leaf piles: they damage equipment and endanger workers' safety. Help the city reduce labor as well as save time and fuel: please have all leaves at the curb by December 24 for efficient removal.

The city is divided into six sections, and leaves are collected in rotation by neighborhood. Crews circulate through neighborhoods at least once every two weeks, often more frequently. Heavy leaf fall or inclement weather may affect leaf collection.

The city is among the only local jurisdictions to provide this service at no additional charge to its residents.

For information, call the Leaf Col-lection Hotline (703-385-LEAF) or sign up for "leaf collection" notices on eMAS, the city's electronic message alert system.

Corcoran Historic Marker Dedicated October 19

Bagpipes and Civil War re-enactors were on hand October 19 to dedicate

a historic marker to Union General Michael Corcoran at the intersection of North Street and Main Street (adjacent to Truro Anglican Church).

Corcoran, who died at the nearby Gunnell House in 1863, was commissioned by President Abraham Lincoln to lead the Union's "Irish Legion."

The marker placement was a joint effort of Historic Fairfax City, Inc.; Historic Markers Committee; the city's Sesquicentennial Committee; and the Historic Resources Office. (Photo by Chris Martin, City of Fairfax)



Input Sought For Zoning Ordinance Update

The City Council has taken an important step in the rewriting of its land development regulations - and will be seeking stakeholder involvement in the coming weeks.

On October 22, the City Council awarded a contract to Duncan Associates to rewrite the Zoning and Subdivision Ordinances. The last major rewrite of the Zoning Ordinance was conducted

During the re-writing process, there will be ample opportunity to participate In public outreach sessions and through Interactive online tools.

A steering committee comprised of Industry professionals and the business community - as well as board and commission members and residents - will be formed to assist in the technical review of the detailed code language

For information, call 703-385-7820.

View Fairfax Boulevard in 3D on Google Earth

See Fairfax Boulevard in 3D on the Web, thanks to a cooperative effort between the City of Fairfax Community Development and Planning Department (CDP) and Google Earth. This will help

the city better plan for the future and visualize current conditions on the Fairfax Boulevard corridor.

CDP, as part of an intern project with guidance from city staff, created photo textured 3D buildings in three areas along the boulevard where future development is anticipated: Northfax, Kamp Washington and Fairfax Circle

To view the 3D maps, download Google Earth, free from Google. In Google Earth, type "Fairfax, VA" in the search window and zoom in to the areas listed above. For information, call 703-385,7930



Real Estate Tax Bills Mailed in November: Tax Relief Available

City of Fairfax real estate tax bills will be mailed in November and are due December 5. Property owners who pay the real estate tax directly and do not receive a tax bill should call 703-385-7904. Residents who receive a real estate tax bill and whose mortgage company escrows the payment should immediately forward the bill to their mortgage company.

City tax relief programs — The city continues to offer real estate tax relief options to qualified senior citizens and homeowners with disabilities: basic tax relief, tax deferral, tax freeze, or combination tax freeze and deferral. Applications will be available in February 2014.

Disabled veterans tax exemption -Disabled veterans (or their surviving spouses) may be eligible for real estate tax

exemptions on their principal residences, effective January 1, 2011.

The veteran must have been declared 100 percent service-connected, permanently and totally disabled by the U.S. Department of Veterans Affairs (V.A.). City residents may contact the Finance Department, located in Room 312 at City Hall, for an application. For this exemption, disability documentation must come from the V.A. It is not sufficient to submit a medical certification from a private physician. To obtain required disability documentation from the V.A., complete V.A. Form 21-4138 and submit it to the V.A. office in Roanoke.

For real estate tax relief and exemption program information, visit the city's website or call 703-359-2486.

General Election to be Held November 5

Important dates and information:

November 2: last day for in-person absentee voting

(General Registrar's Office upon 8:30 a.m. to 5 p.m. daily as well as Saturday, Movember 2)

November 5: polls open from 6 am to 7 pm; after polls close, results posted on Cityscreen-12 and city website as available

Remember to bring proper identification to the polls (voter registration card accepted)

Sample ballot, polling locations, information available: www.fairfaxva.gov • 703-385-7890



Place All Recyclables in One Container; Toters Allowed

Residents with city-provided curbside collection of trash and recyclables may place all recyclables in the blue recycling bins. There is no need to separate Items.

Residents may use the larger, wheeled "toter"-type containers for the curbside disposal of yard waste, recycling or general household trash. Please clearly identify on each container what it contains - yard waste, trash, recyclables - so refuse and recycling crews can easily and quickly remove their contents.

Consider including your address on both toters and city-supplied bins to prevent loss.

Contractors Must Carry Away Their Own Debris

The city provides trash, recy-clables and debris collection for city residents. Residents who have debris from do-It-yourself home Improvements may place their debris at the curb for collection.

Those who hire builders and contractors - even gardeners must make sure these contractors remove all debris from the property themselves.

The city will not dispose of refuse generated by contractors.

Cool Fireplace Ashes

Dispose of fireplace ashes in a metal container with a tight-fitting lid (to keep out air) or leave them to cool in place for at least three days, For information, call 703-385-7830.

When ashes are completely cold, place them in the trash for disposal or use them in compost piles.

Recycling, Disposal Information Available

· How to Dispose of Items in the City Curbside Recycling is Easier Than Ever Pick them up on the city website.

INFORMATION: 703-385-7837





December Closures

Luncheon — City government offices will be closed from 11:45 am to 2:15 pm December 11 for the employee recognition luncheon.

Christmas — City government offices will close at noon December 24 and remain closed December 25.

The General District Court will close December 24-25; call 703-385-7866.

The Fairfax Museum and Visitor Center will close December 24-25. For information, call 703-385-8414.

The Civil War Interpretive Center will close December 24-25; call 703-591-0560.

The CUE Bus will run on a regular schedule until service ends at 7 p.m. December 24. There is no CUE Bus service December 25. For information, call 703-385-7859.

Trash and recyclables will not be collected December 25. Regular Wednesday and Thursday mates will be collected on Thursday, December 26. For information, call 703-385-7837

New Year's 2014 — On January 1, 2014 city government offices, Museum and Historic Blenheim will be closed. There will be no CUE Bus service.

Trash and recyclables will not be collected January 1, 2014. Regular Wednesday and Thursday routes will be collected Thursday, January 2, 2014.

General District Court will be closed December 31, 2013 and January 1, 2014.

If you're new to the city, welcome! Call 703-385-7800 for new resident information.

Festival of Lights and Carols Features Fun, Music, Santa

njoy music, crafts, lunch with Santa and a visit from the jolly old elf at the Festival of Lights and Carols December 7.

Youngsters age 10 and younger may have lunch with Santa at 11 a.m., noon and 1 p.m. at the Stacy C. Sherwood Community Center, 3740 Old Lee Highway. Tickets cost \$6 per child (10 tickets max per purchase) and are available while supplies last at the Parks and Recreation Department offices at City Hall, Green Acres and the Sherwood Center.

The fun continues in the Kitty Pozer Garden (next to the Ratcliffe-Allison House, 10386 Main Street), Listen to live holiday music and enjoy hot cider at the festival beginning at noon and continuing throughout the day. Additionally, Sidney Lanier Middle School musicians

and chorale will perform from 2:30-4:30 p.m. at Old Town Hall, 3999 University Drive.

The tree lighting ceremony begins at 5 p.m. in Kitty Pozer Garden. From 6-7 p.m., take a candlelight tour of the Rateliffe-Allison House, 10386 Main Street

Winter Wonderland — The fun continues throughout the holiday season in the Kitty Pozer Garden. The garden will be illuminated with animated lights, sponsored by the Northern Virginia Regional Park Authority and Bull Run Lights.

For information, call 703-385-7858.

The public is cordially invited to attend a farewell reception for Treasurer Stephen L. Moloney from 6-7 pm December 10 in the City Hall Atrium. 10455 Armstrong Street.

RSVP is requested, Christian Kills of his farm, gare 703 385 7850

Don't Bag It! Rake Leaves to Curb by December 24 for Prompt Collection

Curbside leaf collection continues through December 31, Please rake loose leaves to the curb. Bagged leaves will not be collected during this time: the landfill will not accept them as trash.

Light yard debris (like grass clippings, weeds) may be included in leaf piles. Please keep stones, branches and other large items out of leaf piles; they

damage equipment and endanger

workers' safety

Help the city reduce labor as well as save time and fuel: please have all leaves at the curb by December 24 for efficient removal.

The city is divided into six sections, and leaves are collected in rotation by neighborhood. Crews circulate through neighborhoods at least once every two weeks, often more frequently. Heavy leaf fall or inclement weather may affect leaf collection.

The city is among the only local jurisdictions to provide this service at no additional charge to its residents.

For information, call the Leaf Collection Hotline (703-385-LEAF) or sign up for "leaf collection" notices on eMAS, the city's electronic message alert system-

In Memoriam: Glenn L. White

Glenn L. White, former City Councilmember and community activist, passed away November 16.

Mr. White moved to the City of Fairfax in 1965 and quickly became involved In community activities, including the Fairfax Police Youth Club and the Truro Church choir. He served as president of the Cobbdale Citizens Association,

He was elected to the City of Fairfax City Council from 1972-74 and from 1978-88. He also served on the Warren County Planning Commission from 2000-03 and the Warren County Board of Supervisors from 2008-11.



City Begins **Zoning Ordinance** Rewrite

The process to rewrite the City of Fairfax Zoning

Ordinance kicks off December 3-4. The consultants of Duncan and Associates will conduct a series of in-depth interviews with development Industry professionals, members of the business community, residents, and city staff to help identify areas for improvement in the city's land use regulations and procedures.

Consultants also will meet with the City Council and the Planning Commission, as well as other boards and commissions, and tour the city to collect data.

Look for more information on the project at www.zoningfairfax.com, which will be launched in early December. For Information, call 703-385-7820.

Dog License Applications Mailed in December

City dog licenses are available for \$5 per year for spayed or neutered dogs and \$10 a year for unaftered dogs. All dogs age 4 months and older must be licensed.

To obtain a license, dog owners must present a current rables certificate for each dog. Licenses may be purchased for the years the rables vaccination is valid. If applicable, residents must present a neuter/spay certificate (for first-time licenses only).

Licenses may be purchased at the Treasurer's Office in City Hall, and applications are available on the city's website. For information, call 703-385-7900.

Protect Home, Business During Holidays

During the holidays, a little caution and advice the city's fire and police departments - can help prevent tragedy.

Fire Prevention - Read directions to properly and safely maintain and use holiday decorations. All decorations should be fire-safe and should not block doors, windows or other exits. Combustible decorations like trees and wrapping paper should be kept away from fires, space heaters and other ignition sources,

Never allow candles to burn unattended, and cool fireplace ashes in metal containers or in the fireplace for three days before disposing of them.

Check lights for frayed cords, bare

wires and broken bulbs. Live trees should be supple and fresh (with plenty of water in the tree stand). Consider an uncut tree that can be planted after the holidays. Artificial trees should be fire-resistant. For information, call 703-385-7830.

Personal Safety - Be careful announcing absences from home on social media. When traveling, make the house look occupied with interior and exterior lights. Stop deliveries and have someone pick up publications and papers left at the door.

Do not enter a house that appears to have been burglarized.

For information, call 703-385-7966.

When weather gets bad, take the CUE Bus! CUE Buses run in all weather year-round.



Prepare for inclement weather, get the CUE Bus schedule and bookmark Nextbus.com to avoid waiting too long in the cold.

Use SmarTrip for fare and transfers, SmarTrip cards may be purchased at the Tressurer's Office in City Hall and recharged online.

All CUE Buses have full access for all riders.

Information and schedules: 703-385-7859; www.fairfaxva.gov



Prepare Now for Winter Weather, Snow, **Possible Weather-Related Emergencies**

Start planning now to face winter weather. Remember issues and problems you might have faced during the last few winters and plan accordingly.

Make arrangements now for assistance with snow and ice removal on private property as needed. Also, identify other service providers for weather-related services, like heater repair, fireplace service and more.

Check on neighbors who may need assistance, and help as you can.

Snow, Ice Removal — The city plows its own public roads, with Public Works Department crews working around the clock to make city streets passable.

When snow storms are forecast, park in your driveway (if you have one): it makes snow removal easier on neighborhood roads and may reduce your own

driveway shoveling.
Please clean sidewalks in front of homes and businesses. Pile snow to the right side of the driveway (while facing the street) so city trucks can push it away from the driveway. Remember, it is against the law to push snow onto city streets because it impedes snow removal and creates an unsafe situation-

Adopt a hydrant: remove snow from around fire hydrants so the fire department can find them when needed.

Emergency Preparation — Winter can mean power outages, icy roads, closed school or work. Prepare weatherrelated emergencies with the help of the Emergency Management Office. Remember make a plan, get a kit, stay informed. For assistance, call 703-385-4856 during regular business hours.

Real Estate Taxes Due December 5

Real estate tax payments are due by December 5. Payments postmarked or made after December 5 will incur a 10 percent late payment penalty and interest charges.

In addition to paying by mail or in person to the Treasurer's Office in City Hall, taxpayers may pay their tax bills online using e-checks (a free service) or with credit cards (for which there is a fee for usage). For information, visit the city's website.

Reaf property owners who do not have their real estate taxes escrowed by a mortgage company may pre-pay real estate taxes in monthly installments. For information, call 703-385-7904.

The city continues to provide a comprehensive real estate tax relief program for senior citizens and homeowners with disabilities. These options include tax relief, deferral, freeze or combination of freeze and deferral. Property owners will receive information with tax assessment notices in 2014. For information, call 703-359-2486.

Virginia law has created a real estate tax exemption for the primary residence of certain disabled veterans and their surviving spouses. The veteran must be declared 100 percent service-connected, permanently and totally disabled by the U.S. Department of Veterans Affairs. For information, call 703-359-2486.

Mason Enterprise Center Offers Services to Help Businesses Grow

Start-up businesses have an excellent resource: the Mason Enterprise Center, MEC-Fairfax, a business accelerator program designed to help start-up businesses grow and achieve maximum success.

Located in Old Town Fairfax, MEC-Fairfax provides furnished office space, telephone and receptionist service — as well as access to business advisors,

networking opportunities, and quality educational programs.

As a partnership initiative between George Mason University and the City of Fairfax Economic



Development Authority, MEC-Fairfax is the largest university-based business incubator in Virginia. It also is home to Mason's International Business Accelerator, one of only three in the country, which assists foreign businesses in establishing a U.S. subsidiary at the center in order to introduce their products and services to the U.S. market.

Make use of this award-winning service and build your business today.

For information, call 703-277-7770 or visit the MEC-Fairfax website at www. mecfairfax.org.

Fairfax Water Public Hearing on City Water Rates Set for December 19

City Customers Will Transition to Fairfax Water on January 3, 2014

City of Fairfax water service will transition from the City of Fairfax Utilities Department to Fairfax Water on January 3, 2014. All water customers will receive information in December from both the city and Fairfax Water regarding this transition.

Current water rates will remain unchanged for city customers, but Fairfax Water is required to hold a public hearing and take action to establish the water rates and enable billing for City of Fairfax water customers.

The public hearing will be held at 6:30 p.m. December 19 at Fairfax Water headquarters, 8570 Executive Park Avenue, Fairfax. For information, call 703-289-6017.

Please note: no action is required by city water customers, who will see no change in water service or rates after the transition; call 703-385-7920.



Keep Curbside Collection Safe for Workers: Remove Nails, Sharps

When placing Items at the curb, please remember to remove nalls, staples and other sharp objects from wood, drywall and other items.

This will help protect refuse and recycling workers who handle the materials.

Reminder: Holiday Greens Collected Curbside in January

Once the holidays are over, consider giving your live trees, garland and wreaths a chance to keep on working: place them at the curb in January. Live greenery is taken to the Fairfax County landfill to be made into mulch, which is available to city residents while supplies last.

Recycling Bins Available; Toters Permitted

City residents who receive city curbside recycling service from the city are provided special blue recycling bins for this purpose. Residents may request new (or additional) recycling bins via e-mail to Dave. Rayer fulr furrus, gav or calling 703-385-7837.

City residents may use larger containers they supply themselves, which may be up to 35 gallons (typical trash can size) with lids. Please make sure they are clearly marked as "recycling." (If possible, please choose blue-colored containers so crews can easily identify them).

Recycling, Disposal Information Available

- How to Dispose of Items in the City, which lists what Items may be disposed of where and how in the city, and
- city, and

 Curbside Recycling is Easier Than
 Ever, which lists what items are
 recycled in the city's blue bins.

Information: 703-385-7837



Reception for Stephen Moloney Set for January 14

Stephen L. Moloney has retired as City Treasurer, and the city is hosting a reception in his honor from 6-7 p.m. January 14 in the City Hall Atrium.

Please RSVP (703-385-7850, Christina.Kitts@fairfaxva.gov). Note: this event was postponed from an

CDP Director David Hudson Retires

The City of Fairfax announces the retirement of David Hudson, who joined the city in 1985 and has been the director of the Community Development and Planning Department since 1995.

Early in his tenure, Hudson led the effort to refine the City's development regulations and land use planning documents to encourage better forms of development in the city. He subsequently worked with the development community and city groups in efforts that resulted in the "remaking" of Old Town; including the redevelopment of the Shoppes at Main Street, and the development of Paricroft, Old Town Village, the Grossings, Providence Square and the Gity of Fairfax Regional Library, as well as the recently-approved redevelopment of the Layton Hall Apartments.

In other areas of the city, Hudson was involved in the establishment of a business improvement district for Fairfax Boulevard, and the development of a master plan for future development within that corridor. He worked on the redevelopment of many of shopping centers along Fairfax Boulevard, as well as significant improvements to Fair City Mall and the Turnpike Shopping Center. Most recently, he has been

focusing on mixed-use redevelopment opportunities along Fairfax

Dog Licenses Due February 1

City dog licenses for 2014 are available for \$5 per year for spayed or neutered dogs and \$10 per year for unaltered dogs. All dogs in the city age 4 months and older must be licensed and vaccinated against rables.

Dogs not wearing a 2014 license tag by February 1 will be in violation of City Code, and owners will be subject to a fine.

Dog owners may purchase multi-year licenses that are valid for the same length of time as the rables certification.

To obtain a license, owners

must present a valid rables certificate for each dog and, if applicable, a neutered/ spayed certificate from the dog's veterinarian (required for first-time licenses

Licenses may be purchased in person at the Treasurer's Office in City Hall. Applications also may be submitted on the city's website. For information, visit the city's website or call 703-385-7900.

The number of dogs allowed on a property depends on the size of the lot. For information, call 703-385-7820. For information on other animal laws, call 703-385-7924.

'Mosby's Raid' Commemorative DVD Available Now

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See Mosby's Raid like you've never seen it before: on a special commemorative DVD of the March 9, 2013 reenactment and commemoration of John Singleton Mosby's daring capture of Brigadier General Edwin Stoughton.

The special compilation DVD contains two episodes of The Fairfax Scene, plus the reenactment as it was presented at the sesquicentennial event.

The DVD features two exclusive programs from the event: the dignitary speeches and a segment on cavalry

tactics. The two episodes of The Fairfux Scene are the enhanced version of the reenactment at the William P. Gunnell House in Old Town Fairfax and the Mosby Scholars Symposium.

Cost is \$21,15 per DVD (\$19,95 plus tax) available at City Hall, the Fairfax Museum and Visitor Center and Historic Blenheim.

The Fairfax Scene episodes remain available on the city's website and on YouTube, For information, call 703-385-7803.



Chocolate Lovers Festival Schedule

Friday, January 31
Kaydee Puppets: Chocolate Dipped Tales — 2 p.m., City of Fairfax
Regional Library

Saturday, February 1

Kiwanis Pancake Breakfast — 8 a.m. to 1 p.m., Fire Station 3

Child Fingerprinting — 10 a.m. to 3 p.m., Fairfax Courthouse

Taste of Chocolate — 10 a.m. to 5 p.m., Old Town Hall
Chocolate Challenge and Silent Auction — 10 a.m. to 5 p.m., Nutrition Kitchen
The Chocolate Caper Mock Trial — 10:15 a.m., 1:15 p.m., Fairfax Courthouse
Musical Dan of Cody & Rij — 13 a.m., City of Fairfax Regional Library
Harley Eye Caraly Photos — 11 a.m. to 3 p.m., City of Fairfax Regional Library
Fire Safety Papper Show — 12:30 pm, City of Fairfax Regional Library
So Yan Think You Are Smarter Than a Luvyer? — 11:45 a.m., Fairfax Courthouse
Chocolate-Covered Fairy Tales with Gary Linyd — 2 p.m., City of Fairfax Regional Library
See Jane Sing Quartet — 3:30 p.m., City of Fairfax Regional Library
Open House and Exhibits — Fairfax Museum and Visitor Center, 9 a.m. to 5 p.m. * Legato
School, 10 a.m. to 4 p.m. * Ford Building, 10 a.m. to 4 p.m. * Ratchiffe-Allison House, School, 10 a.m. to 4 p.m. * Ford Building, 10 a.m. to 4 p.m. * Ratcliffe-Allison House,

noon to 4 p.m. Chocolate Movie Night: featuring Willy Wonks and the Chocolate Factory (rated PG) — 7-9 pm, Stacy C. Sherwood Community Center

Sunday, February 2
Chocolate Challenge and Silent Auction — noon to 4 p.m., Nutrition Kitchen
Taste of Chocolate — noon to 4 p.m., Old Town Hall
Fire Safety Pupper Show — 12:30 pm, City of Fairfax Regional Library
Wildlife Ambassadors — Journey to the lungle — 2-3 p.m., City of Fairfax Regional Library
Turley the Magictan — 3:30-4:15 p.m., City of Fairfax Regional Library
Open House and Exhibits — Fairfax Museum and Visitor Center. 9 a.m. to 5 p.m. • Legato
School, 10 a.m. to 4 p.m. • Ratcliffe-Allison House, noon to 4 p.m.
Schedule is subject to charge. Visit www.chocolatefestival.net for an event map and
Information on parking, shuttle schedules, costs and more.

Information: www.chocolatefestival.net • 703-385-1661

2013 Business Recycling **Report Due Online**

City business owners can help the city share their recycling success with the state by submitting their annual recycling reports with Information on the amount of recycling their businesses generate.

The business recycling report must be submitted electronically using a form on the city's website. For Information, call 703-385-

The report, which must be submitted online between January 1 and March 1, details actual or estimated weight or volume of recycled materials provided by the business' recycling vendors.

Commercial property owners who

provide recycling services for their tenants must submit the information on behalf of those tenants.

Business owners who have received permission from the city to use the city's recycling center for this purpose must submit a report with an estimate of their recycling amounts.

Home-based businesses do not submit reports: their refuse already is included in the city's annual municipal recycling report.

The report must be filled out online. Computer services and Internet access are available for free at the City of Fairfax Regional Library, 10360 North Street.



Christmas Trees Collected Curbside in January

Give a gift to Mother Earth: recycle Christmas trees, live garland, wreaths and other live greenery by placing them at the curb on regular trash and recycling collection days in January.

Please remove decorations, including tinsel and garland, and place items separate from refuse and recyclables at the curb on scheduled collection days.

Leaf Collection: Bag 'Em Out of Season

When it's not leaf collection season, be a good neighbor and bag your leaves.

The city collects loose leaves at the curb only during at certain times of the year. Winter collection has ended, and spring cleanup leaf collection service will be announced

Recycling, Disposal Information Available

The City of Fairfax has two flyers to help residents properly dispose of trash and recyclables in the city:

 How to Dispose of Items in the City
 Curbside Recycling is Easier Than Ever For a copy of the flyers, visit the city's website or call 703-293-7141.

Put Rechargeable Batteries in Recycling Center

Rechargeable batteries may be dropped off in a bin at the Recycling Center, 3410 Pickett Road, which is open 24 hours a day, seven days a

Regular household batteries may be placed in household trash.

Sign up for eMAS to receive news and information regarding refuse and recycling services electronically. Information: emas.fairfaxva.gov

Information: 703-385-7837

Partial Tax Exemption Offered for Renovated Homes

Residents who plan to substantially upgrade their older residences may be eligible for a partial real estate tax exemption.

The exemption amount is based on the increased value of the residence that has been substantially rehabilitated, renovated or replaced. Exemptions are given for a 10-year period, with a 100 percent exemption of the increased value for the first five years then decreasing percentage for years six through 10.

The residential structure - singlefamily house or duplex - must be at least 15 years old. The improvements

must Increase the assessed value by at least 15 percent. The homeowner must obtain appropriate building permits and inspections during the home improvement process.

Applicant must apply for the exemption before any construction begins (preferably as soon as any required building permits are granted).

The city assessor will establish the base value of the home before construction begins, and approve the exemption upon final inspection after construction is finished.

For information, call 703-385-7840.

Senior Center, Parks and Recreation Classes Follow FCPS Weather Schedule

In case of inclement weather, the City of Fairfax Parks and Recreation Department follows the Fairfax County Public School's (FCPS) cancellation policy regarding programs, classes and Senior Center hours. For information, call 703-385-7858.

Closed - When FCPS are closed due to weather conditions, the Senior Center will be closed and classes are cancelled.

Late Start - When FCPS are delayed for one or two hours, classes and activities will start at 10:30 a.m. and the Senior Center will open at 10:30 a.m.. All classes with start times prior to 10:30 a.m. will be cancelled.

Early Dismissal - When Fairfax County Schools initiate an early closing or cancellation of evening school activities, all afternoon and evening classes starting after 2 p.m. will be cancelled, including the Senior Center.

Please note: Parks and Recreation closures may differ from general City of Fairfax government service announcements

Closures are announced on the city's website, Cityscreen-12, eMAS (the city's electronic message alert system), social media such as Facebook and Twitter, and on the city's Newsline: 703-273-1776. The Senior Center phone number is 703-273-6090.





Dog Licenses are Due February 1

All dogs in the city age 4 months and older must be licensed by the City of Fairfax and vaccinated against rabies. Licenses are due by February 1

2014 city dog licenses are available for \$5 per year for spayed or neutered dogs and \$10 per year for unaltered dogs. Licenses may be purchased at the Treasurer's Office in City Hall, and applications may be requested on the city's website. For information, call 703-385-7900.



City Government Offices Close February 17

City government offices will close February 17 in observance of

George Washington Day.
The General District Court also will be closed; for information, call 703-385-7866.

CUE Bus will run on a modified weekday schedule; for information, call 703-385-7859.

Trash and recyclables will not be collected February 17. Those with regular Monday and Tuesday service should place their items at the curb on Tuesday, February 18. For information, call 703-385-7837.

The Fairfax Museum and Visitor Center will be open. For information, call 703-385-8414.

If you're new to the city, welcome! Call 703-385-7800 for new resident information.

Route 123 Bridge Replacement Scheduled to Begin in Early March

Construction on the bridge on Route 123/Chain Bridge Road at Kenmore Drive currently is scheduled to begin in early March to replace the aging bridge across Accotink Creek. (Please note date change.)

During this time, northbound Chain Bridge Road traffic will be detoured. Southbound traffic will not be detoured, but lanes will shift in the work zone. Sidewalks in the work zone will be closed. Pedestrians should follow the Chain Bridge Road detour, (See map, right.)

The detour will be in place for most of the duration of the project, which could take up to six months. Consider University Drive as an alternate north-south route to avoid the work zone.

For up-to-date information, visit the city's website or call 703-385-7810.



Budget Presentation Set for February 25

Help the City Council determine the city's financial priorities for fiscal year 2014-15 by participating in the annual budget review.

City Manager Bob Sisson presents the proposed budget to the City Council and the public during the February 25 work session.

The budget review process will continue until the Mayor and City Council adopt the final budget, which is scheduled for Wednesday, April 30.

In addition to the meetings and work sessions, the City Council will hold community outreach meetings to provide the public with an additional opportunities to speak on the budget. (Please see the schedule at right.)

The budget is a detailed description of how taxpayer money is spent and also is a fact-filled reference on the city government's structure and operations.

The proposed budget explains the city's goals, proposed programs and activities for that fiscal year. The budget

also includes the first year of the five-year Capital Improvement Program.

Copies of the proposed budget will be available at the February 25 City Council meeting, and the budget document and will be posted on the city's website. For information, call 703-385-7870.

Budget Review Schedule

Pebruary 25: budget presentation March 11: City Council meeting and work session; public outreach meeting March 18: work session (staff presentations) March 25: public hearing and work session, real estate tax rate to be advertised April 1: budget work session and public outreach meeting April 8: public hearing and work session April 22: public hearing and work session April 30: public hearing and budget adoption

Budget meetings and work sessions are held at the CBy Half Annex and are telenlsed on Cliyscreen-12; see page 5 for schedule and viewing information. Additional meetings may be scheduled as meeded. Schedule is subject to change.



Apply Now for the 2014 Citizen's Fire Academy

Learn more about the operation and organization of the City of Fairfax Fire Department at the Citizen's Fire Academy, which begins in March 12.

This 12-week program includes about 28 hours of instruction. Sessions last about two and a half hours and are held at the city's Public Safety Training Center, 9650 Colonial Avenue. Class size is limited. to 16 students, so register early.

For information, visit the city's website or call 703-385-7940.

Tax Prep Assistance Available from City,

VITA, AARP, TCE
The Office of the Commissioner of the Revenue provides free assistance preparing and filing federal, state and estimated tax returns for city residents with incomes up to \$60,000. Assistance is provided by appointment from February 17 through April 11 in City Hall. To make an appointment, call 703-385-7880.

AARP TaxAlde and Volunteer Income Tax Assistance (VITA) offer free federal tax return assistance to low- and moderate-income persons of any age through April 15 at multiple drop-in locations throughout the area. For information, call (888) AARP-NOW.

Military personnel and the elderly have options: Tax Counseling for the Elderly (TCE) provides free tax help for people age 60 and older and military personnel also can get free tax help through the Armed Forces Tax Council. For Information, call (800) 829-1040.

Find out first! Find out fast! Sign up for eMAS, the City of Hairlax electronic message alert system, on the city's website: www.fairfaxea.poe.

Sworn Into Office





Tom Scibilia (left), the city's new Treasurer, and William Page Johnson II (right), who has served as the city's Commissioner of the Revenue since 1998, were sworn in to office on December 23, 2013 to serve their four-year terms. (Photos: Pete Dowty, City of Fairfax)

City Receives DEQ Grants for Stream **Restoration, Stormwater Management**

The City of Fairfax Public Works Department has received two grants this year from the Commonwealth of Virginia, Department of Environmental Quality (DEQ) for city projects. For information, call 703-385-7810.

The city received \$285,000 of matching grant monies from the DEQ Stormwater Local Assistance Fund for the Daniels Run stream restoration capitol improvement project, currently in the preliminary stages of design.

The city also was awarded \$42,590 in matching grant monies for the implementation of the second phase of its new required stormwater management

program - specifically, stormwater training and the creation of a new geospatial best management practices (BMP) database to be used for the new city-wide BMP inspection program. In 2012, Public Works was awarded \$25,000 in matching grant monies toward the first phase of the Virginia Stormwater Management Program, including the new stormwater ordinance, adopted by the City Council in November 2013.

In 2013, DEQ funded 36 projects by 60 jurisdictions statewide to develop and help develop local stormwater programs, keeping them consistent with the Virginia Stormwater Management Act.



Chocolate Lovers Festival Schedule

Saturday, February 1

Kiwanis Pancake Breukfast = 8 a.m. to 1 p.m., Fire Station 3

Child Fingerprinting = 10 a.m. to 3 p.m., Falfax Courthouse
Taste of Checolate = 10 a.m. to 5 p.m., Old Town Hall

Chocolate Challenge and Silent Auction = 10 a.m. to 5 p.m., Nutrition Kitchen
The Chocolate Caper Mock Trial = 10:15 a.m., 115 5 p.m., Fairfax Courthouse

Musical Duo of Cody & B = 11 a.m., City of Fairfax Regional Library

Harley Eye Canaly Photos = 11 a.m., City of Fairfax Regional Library

Fire Safety Pupper Show = 12:30 pm. City of Fairfax Regional Library

Chocolate-Covered Fairf Tales with Gayr Lloyd = 2 p.m., City of Fairfax Regional Library

See Jane Sing Quartet = 3:30 p.m., City of Fairfax Regional Library

Open House and Exhibits = Fairfax Museum and Visitor Center, 9 a.m. to 5 p.m. •

Legato School, 10 a.m. to 4 p.m., • Ford Building, 10 a.m. to 4 p.m. • Ratcliffe-Allison

House, noon to 4 p.m.

Willy Wonka Children's Activities — 6-6:30 pm, Stacy C. Sherwood Community Center

Chocolate Morie Night: Featuring Willy Wonka and the Chocolate Factory | rated PG) —

7-9 pm, Stacy C. Sherwood Community Center

7-9 pm, Stacy C. Sherwood Community Center

Sunday, February 2

Chocolate Challenge and Silent Auction — noon to 4 p.m., Nutrition Kitchen Taste of Chocolate — noon to 4 p.m., Old Town Hall Fire Safety Puppet Show — 12:30 pm, City of Fairfax Regional Library Antinal Ambassadors; Journey to the Jungle — 2-3 p.m., City of Fairfax Regional Library Mayle With Turley — 3:30-4:15 p.m., City of Fairfax Regional Library Open House and Exhibits — Fairfax Museum and Visitor Center, 9 a.m. to 5 p.m. • Legato School, 10 a.m. to 4 p.m. • Ratellife-Allison House, noon to 4 p.m. • Shechile is subject to change. Visit recognification for the reference may a not a supplied to the change of the control of the control of the change of the

Schedule is subject to change. Visit www.shocolatefestival.net for an event map and information on parking, shuttle schedules, custs and more.

Information: www.chocolatefestival.net • 703-385-1661

City Business Recycling Reports Due Online by March 1

City business owners can help the city share their recycling success with the state by submitting their annual on the amount of recycling their

businesses generate.

The business recycling report must be submitted electronically using a form on the city's website, For information, call 703-385-7837

The report, which must be submitted online between January 1 and March 1. details actual or estimated weight or volume of recycled materials provided by the business' recycling vendors.

Commercial property owners who

provide recycling services for their tenants must submit the information on behalf of those tenants.

Business owners who have received permission from the city to use the city's recycling center for this purpose must submit a report with an estimate of their recycling amounts.

Home-based businesses do not submit reports; their refuse already is included in the city's annual

municipal recycling report.
The report must be filled out online. Computer services and Internet access are available for free at the City of Fairfax Regional Library, 10360 North Street

Refuse Container Size Limited; Place at Curb in Timely Fashion

City Code limits the size of refuse containers to 35 gallons or 60 pounds.

Recyclables may be placed at the curb using city-supplied bins or full-size blue trash containers clearly

marked as "recycling." Residents are asked to place all containers and debris at the curb no earlier than dusk the previous day and no later than 7 a.m. of collection

Please remove these containers from the curb by 8 p.m. on collec-tion day. City refuse and recycling collection is provided once a week.

Remember, the city does not collect debris created by contractors. The cost of disposing contractor debris should not be borne by the city government.

Recycling, Disposal **Information Available**

Find two flyers to help properly dispose of trash and recyclables:

· How to Dispose of Items in the City

Curbside Recycling is Easter Than Ever For a copy of the flyers, visit the city's Refuse & Recycling page (under Operations Division In the Public Works Department section) or call 703-293-7141.

INFORMATION: 703-385-7837

SafeAssured ID Event Set for February 8

The City of Fairfax Police Department, with the Optimist Club of Central Fairfax, will prepare SafeAssured ID kits for children by appointment from 10 a.m. to 4 p.m. February 8 at the police station, 3730 Old Lee Highway. For an appointment, call 703-273-2889.

SafeAssured 1D provides parents with a full-color photo 1D card, digital fingerprints, video, photos, a family code word and other vital personal information accessible only by law enforcement. There is no database.

Fairfax Water Delivers New Customer Packets, Responds to Water Service Issues

Fairfax County Water Authority (Fairfax Water) has mailed "water cus-tomer information packets" to all city residential and business water customers. This packet includes information about service, billing and other frequently asked questions. For information, call 703-698-5800.

Additionally, city water customers soon will receive their final bill from the City of Fairfax Utility Department, For information, call 703-385-7915.

All water-related activities including construction projects, water main breaks,

customer service, billing, and customer concerns will be handled by Fairfax

Please report water main breaks and other water-related service issues directly to Fairfax Water. The customer service phone number is 703-698-5800. For after-hour water emergencies and service issues, call 703-698-5613.

Be sure to visit the Fairfax Water website at www.FairfaxWater.org for information about current service, water source, billing and more. For information, call 703-698-5800.

City Conducts Deer Sterilization Program

The City of Fairfax has begun participation in a research program to manage the city's resident deer population through the humane sterilization of does. The program, authorized by the Virginia Department of Game and Inland Fisheries and funded by non-governmental grants, will be conducted during the nighttime hours through February 6 by White Buffalo, Inc.

Uniformed City of Fairfax police officers in marked vehicles will accompany White Buffalo personnel, who will locate does in public open spaces in the city and tranquilize them with a dart.

Tranquilized does will be transported to the police station, where licensed veterinarians will perform the sterilization procedure. Afterward, does will be

carefully returned to the general area where they were first located.

Tranquilizer darts have no lasting effect on the does, who may appear slightly confused as they recover from the tranquilizer.

Tranquillizer darts will not be used near buildings, vehicles or people. If a doe makes her way onto private property after receiving the dart, White Buffalo personnel will seek permission of the resident or property owner before collecting the tranquilized animal.

White Buffalo, Inc., has conducted similar programs in other communities, which have successfully curtailed the deer population without injury to the animals. For information, call 703-273-





BPOL Payment, Filing Due March 1

The deadline for city businesses to file and pay for the City of Fairfax business license (BPOL) is March 1. The postmark, not the postage meter date, will determine the filing and payment date of mailed applications.

License renewals and new licenses must be filed and paid to the Commissioner of the Revenue in City Hall. For information, call 703-385-7880.

Commercial Recycling Reports Due March 1

City husiness owners must submit an annual report by March 1 on the amount of recycling their businesses generate. The report must be submitted electronically using a form on the city's website. For information, call 703-385-7837.

March 4 is Deadline for General Election Filing

Candidate filings are due by 7 p.m. March 4 for Mayor (one position, two-year term). City Council (six positions, two-year term) and School Board (five positions, two-year term). Candidate information bulletins, filing papers and petitions are available from the State Board of Elections (800-552-9745; www.sbc. state.va.us) and at the Sisson House (adjacent to City Hall).

Voter registration books close April 14 for the May 6 election. For information, call **703**-385-7890.

If you're new to the city, welcome! Call 703-385-7800 for new resident information.

Winter Takes Fairfax by Storm Drifts Top Out at 15 Inches from 'Snochi' Event

Fairfax received a one-two punch February 12-13 as more than a foot of snow blanketed roads and buildings from two separate fronts in 36 hours.

When the snow settled, plows removed snow from the city's 70 miles of roads and uncounted municipal walkways, bus stops and parking lots.

Massive mounds of snow moved by oversized equipment sometimes spilled onto driveways and walkways, unfortunate but unavoidable.

Despite the warm temperatures that followed, snow lingered on walkways, reminding business owners and residents alike about the Importance of shoveling sidewalks and walkways for pedestrians, especially school children, who use them. (Photo by Chris Cohen, City of Fairfax)



Route 123 Bridge Replacement Scheduled to Begin in Late March

Access Between Kenmore Drive and Route 123 Now Limited

Construction to replace the aging bridge over Accotink Creek on Route 123/Chain Bridge Road at Kenmore Drive currently is scheduled to begin in late March. (Please note date change.) Cur-

rently, access between Kenmore Drive and Chain Bridge Road is limited due to water main work in preparation of the bridge replacement.

During the bridge replacement, northbound Chain Bridge Road traffic will be detoured. Southbound traffic will not be detoured, but lanes will shift in the work zone. Sidewalks in the work zone will be closed. Pedestrlans should follow the Chain Bridge Road detour. (See map, right.)

The detour will be in place for most of the duration of the project, which could take up to six months. Consider University Drive as an alternate north-south route to avoid the work zone. For up-to-date information, visit the city's website or call 703-385-7810.



City's Real Property Tax Base Increases 3.29 Percent in 2014

The city's real property tax base is projected to increase by about 3.29 percent for 2014. Increased assessments makes up 2.69 percent of this increase, while 0.60 percent is attributable to growth and new construction. This increase reflects improved market conditions in the residential sector, but also a commercial sector which remains flat.

Real estate assessment notices, which will be mailed in mid-March, will reflect an overall projected increase of about \$176 million in assessed value.

Residential assessments, which constitute roughly 62 percent of all assessments, will increase by approximately 4.53 percent overall this year, not including growth and new construction.

Existing single-family property assessments are expected to increase 4.5 percent on average, ranging from no increase in certain neighborhoods to as much as 13 percent in others. Residential condominiums are expected to increase 8 percent on average, ranging from 5-12 percent depending on the neighborhood. Townhomes are expected to increase 3.3 percent on average, ranging from 0-11 percent, depending on the neighborhood.

Overall, commercial real estate assessments, which constitute roughly 38 percent of all assessments, are projected to decrease 0.10 percent, not including growth and new construction. Average assessments will change for specific property types, including free-standing office buildings (-2 percent), commercial condominiums (-3 percent), retail (increasing 1-2 percent, depending on use), industrial flex/warehouse (up 6 percent), and multi-family (little or no change). Vacant commercial land is projected to remain level with 2013.

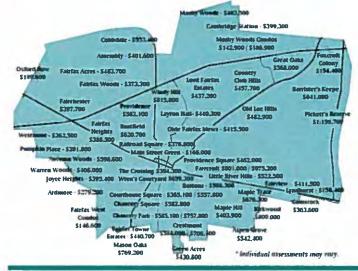
Commercial and residential development, newly constructed homes, and residential and commercial renovations have added an estimated \$32 million to the property tax base for 2014.

Revenues projected from real estate assessments are the single largest source of the city's revenue. The City Council will set the 2014 tax rate during the budget process. The tax rate determines the amount of real estate taxes paid for the calendar year.

Real estate assessments, made each year, are effective January 1. Virginia law requires that the assessed value of real property reasonably reflect fair market value as indicated by recent sales, and that it be equitable with the assessments placed on comparable properties.

Real estate assessment and sales information, as well as appeal forms, instructions, and other information are available on the city website, or call 703-385-7840.

2014 Projected Average Residential Assessments*





Dispose of Broken Recycling Bins Curbside

The city-supplied blue recycling bins for residential curbside collection are durable, but they can crack break or become otherwise unusable, over time. When this happens, request a replacement bin from the Operations Division (703-385-7837, RefuseRecycling@fairfaxva.gov).

To dispose of unusable recycling bins, mark them with a note for workers to "take the old bins," then place them at the curb with recycling materials.

Residents may use multiple recycling bins on collection day; request additional bins from the Operations Division.

Residents also may purchase their own toter containers and mark them as "recycling" for proper collection by city crews.

Spring Cleanup Day Set for April 26

April is Fairfax's Spring Cleanup Month, and the city provides services to assist with spring cleaning — including Spring Cleanup Day, where individuals or groups choose a neighborhood or public area to clean.

The city provides trash bags and collects the used ones on Spring Cleanup Day, which this year is April 26. Choose a park, roadside, creek bed, historic property or other area that needs your attention. Obtain permission from the property owners, such as the city or community association, before beginning.

If April 26 isn't convenient, choose a different day — and see what arrangements can be made.

Recycling, Disposal Information Available

- . How to Dispose of Items in the City
- Gurbside Recycling is Easier Than Ever.

Flyers are available on the Refuse & Recycling page of the city website or call 703-293-7141.

INFORMATION: 703-385-7837





Fairfax Spotlight on the

Arts Begins April 25
Beginning April 25, the Fairfax
Spotlight on the Arts Festival celebrates its 29th year as "A Voyage of

The festival highlights the region's evolving arts and heritage, discovering both past and present cultures and music from as well as stories and insights from cultures in our midst.

For information visit www.falr-faxspotlight org or call 703-352-



Leaf Collection Offered in April; Keep Branches, Twigs Out of Leaf Piles

The city will collect leaves from the curb on Tuesdays in April. Bagged leaves will not be collected in April. Please rake loose leaves to the curb by 7 a.m. on collection day (April 1, 8, 15, 22 and 29).

Please refrain from including twigs, branches and other yard debris, as these items can cause injury to workers and break machinery.

Collection trucks circulate throughout the city's six leaf zones.
Please note: inclement weath-



If you're new to the city, welcome! Call 703-385-7800 for new resident information.

City Provides Special Services in April For Spring Cleanup

oin the city as it spruces up for spring — and provides special services — in April for Spring Cleanup Month. For information, call 703-385-7995.

Arbor Day - Celebrate Arbor Day with the city with a tree planting at 10 am April 25 at Providence Elementary School, 3616 Jermantown Road.

Cleanup Day - Help Fairfax spruce up for spring: clean up the neighborhoods or any public area in the city on Spring Cleanup Day April 26. The city will provide trash bags and will collect the used trash bags on Spring Cleanup Day Can't make that day? Call the city anyway to see how we can help your efforts.

Street sweeping - The city will sweep residential streets on Wednesdays, Thursdays and Fridays in April. Signs will be posted in neighborhoods; please refrain from parking on residential streets from 7 a.m. to 3 p.m. on sweeping days.

Don't bag it - If raking isn't your bag, leave grass clippings on the lawn. These clippings can supply 25 percent of a lawn's fertilizer requirements. Use a mulching mower, or mow every five to seven days. so clippings will be short enough to blend in.

Education - Check out Mason Sustainability Institute classes held at the Green Acres Center: visit msi. ennu edu.



Route 123 Bridge Replacement Scheduled to Begin April 1

Construction to replace the aging bridge over Accotink Creek on Route 123/ Chain Bridge Road at Kenmore Drive currently is scheduled to begin on April 1. (Please note date change.)

During the bridge replace-ment northbound Chain Bridge Road traffic will be detoured. Southbound traffic will not be detoured unless it is required for safety reasons, but lanes will shift in the work zone.

Sidewalks in the work zone will be closed. Pedestrians should follow the Chain Bridge Road detour. (See map, right.)

The detour will be in place for most of the duration of the project, which could take up to six months. Consider University Drive as an alternate north-south route to avoid the work zone.

For up-to-date information, visit the city's website or call 703-385-7810.



Maintenance, Service Contracts Recommended for Sewer Laterals

Second in a series

Lateral pipes that carry wastewater from buildings to sewer mains are buried out of sight, and remain out of mind unless they fail — and, when they do fail, damage can be catastrophic and cost can be exorbitant.

City buildings are served by aging wastewater laterals. In many cases, laterals have past their normal life cycle and are subject to sudden failure. Who's responsible for their upkeep and repair?

The current wastewater utility policy states that laterals (from the building foundation to the wastewater main) are the responsibility of the property owner. For information, visit the wastewater pages on the city website or call 703-

385-7921.

Repair costs are borne by the property owners, including asphalt and concrete repairs for affected areas. Costs can be as high as \$30,000 or more.

Sudden wastewater lateral failure can be prevented. New technology allows preventive repairs for \$10,000 or less.

The City of Fairfax advises property owners to assess their sewer laterals and conduct preventative maintenance and repair. Consider having a local plumber videotape the building's wastewater lateral from the inside, and obtain at least two estimates for assessments and repairs. Additionally, property owners are advised to consider investing in a home protection program.

Be Street Smart — Avoid Incidents Between Vehicles, Bikers, Pedestrians

Those who walk, drive or ride in Fairfax always should travel with extra caution — and pay close attention to everyone else using the road.

The City of Fairfax Police Department advises all travelers to obey traffic laws and follow traffic signals and signs. Be aware of your surroundings and never proceed unless it is safe to do so, no matter what the signals indicate. Always wear safety gear: helmets, seat belts, proper clothing for the weather and time of day.

Don't enter an intersection or road if the signal is red, no matter how safe it appears to be. (Drivers "turning on red" should advance with caution.) Watch signal patterns carefully: "broken" lights may allow other vehicles or pedestrians to proceed first through the intersection.

Take your time and travel cautiously in bad weather. Arrive safely, even if that means walking the bike or traveling slower than the posted speed limit. CUE Buses travel in nearly all weather, so if you must travel, consider public transit.

Stay visible in the dark, whether with reflective clothing for the walker or biker, or proper lights on vehicles in traffic. Make sure all equipment is functioning properly, from lights to brakes to pedals to windshield wipers.

For information, call 703-385-7966.

A_{LMANA}C

Contractors Must Dispose of Debris

Contractors who offer services as extensive as home renovations or as simple as grass-cutting are required to dispose of their debris themselves, rather than leave the materials at the curb. The Public Works Department does not dispose of contractor-created debris.

Drop Off Rechargeable Batteries at Recycling Center

Recycling Center
Rechargeable batterles may be dropped off in a bin at the Recycling Center, 3410 Pickett Road.

Regular household batteries may be placed in household trash for collection with refuse.

The center is open 24 hours a day seven days a week for drop-off of numerous materials, including cans, paper, cardboard and more.

Remember: Recycle at Home and Work

Remember: recycling is mandatory for all residents and business owners in the city.

Resident who receive trash/ recyclable collection service may request a recycling bin from the city for curbside collection of materials.

Recycling, Disposal Information Available

The City of Fairfax has two flyers to help residents properly dispose of trash and recyclables in the city:

 How to Dispose of Items in the City, which lists what items may be disposed of where and how in the city.

and

 Curbside Recycling is Easier Than Ever, which lists what items are recycled in the blue bins collected by the city.

For a copy of the flyers, visit the city's website or call 703-293-7141.

INFORMATION: 703-385-7837

Budget Discussion Concludes April 30

Help the City Council determine the city's financial priorities for fiscal year 2014-15 by participating in the annual budget review. The proposed budget is scheduled for adoption on Wednesday, April 30 (see schedule, right).

The budget is a detailed description of how taxpayer money is spent and a fact-filled reference on the city government's structure and operations. It also includes the first year of the five-year Capital Improvement Program.

The proposed budget explains the city's goals, proposed programs and activities for that fiscal year. Copies are available, and the budget document has

been posted on the city's website. For information, call 703-385-7870.

Budget Review Schedule

April 1: Budget mark-up during work session, public outreach meeting April B: Budget public hearing and budget mark-up during work session April 22: Budget public hearing and budget mark-up during work session April 30: Public hearing on real estate tax rate.

and budget adoption
Budget meetings and work sessions are held
at the City Ball Annex and are televised on
Cityscreen-12: see page 5 for schedule and
eiewing information. Additional meetings may
be scheduled as needed.
Schedule is subject to change.

General Election Set for May 6

In-Person Absentee Voting Available Saturday, May 3

Registered voters in the City of Fairfax may cast ballots in the May 6 General Election for Mayor (one position), City Council (six positions) and School Board (five positions). Polls are open from 6 a.m. to 7 p.m. on Election Day. Sample ballots are available online and from the General Registrar's Office.

At the city's six polling locations, voter parking and polls will be clearly marked. Polling locations will be in use for other purposes, such as schools, daycare, church services or government services, so voters are reminded to travel

carefully in these areas.

Voters should bring identification, such as a driver's license, Voter ID card or military ID card, to the polls; those without identification will be required to provide a copy of acceptable ID to the Electoral Board by noon on May 9.

After polls close, preliminary election results will be posted as they are available on Cityscreen-12, the city's television station, the city's website and the Virginia State Board of Elections website.

For information, e-mail Registrar@ fairfaxva.gov or call 703-385-7890.

Phone Scams Include Impersonation of Sheriff Deputies, IRS, Utility Companies

The City of Fairfax Police Department asks the public to be aware of multiple fraudulent schemes involving telephone callers attempting to defraud unknowing victims. Among the current scams are:

- Callers purporting to be Fairfax County deputy sheriffs tell citizens they failed to report for jury duty and must pay a court fee or be arrested.
- Callers state the resident owes back taxes to the IRS, threatening deportation, loss of citizenship and imprisonment if a large sum is not paid immediately.
- Callers pretend to be a representative of

the electric company and threatening to turn off electric service without immediate payment.

 Callers have impersonated grandchildren begging for bail money to stay out of fail in a foreign countries.

These scanmer may request Social Security numbers, bank account numbers, utility account numbers and may accept payments on money cards or credit cards. Citizens who receive phone calls with these or similar suspicious demands to hang up Immediately and not provide any personal information. For information, call 703-385-7924.

via eMAS, the city electronic message

alert system. For information, visit the

city's website or call 703-385-7810.

A_{LMANA}C

Place Trash, Recycling at the Curb Just for a Day

Remember to be courteous to your neighbors when placing trash and recyclables at the curb for collection: remove them promptly.

Trash and recycling may be placed at the curb for collection no sooner than dusk the evening before collection. Please return empty containers to your property by dusk the day of collection.

Some items may be at the curb longer. For example, yard and home improvement debris from do-iteyourself jobs can be placed at the curb the weekend before collection.

Remember, the city does not collect debris from contractors, including builders and gardeners. Contractors must provide their own debris removal.

Keep Bones, Meat Out of Compost Piles

Compost piles recycle organic waste, reduce the amount of trash at the curb and provide natural and healthy fertilizer.

The types of items that should be put in compost piles include leaves, grass clippings and other yard waste; apple cores, potato peels and other organic debris.

Please refrain from putting these types of items in a compost pile: animal meat and organs; bones; and vegetables with dressing or oils. These attract animals and do not decompose.

Recycling, Disposal Information Available

Check out these flyers:

 How to Dispose of Items in the City
 Curbside Recycling is Easier Than Ever, which lists what Items are recycled in the blue bins collected by the city.

For a copy, visit the city's website or call 703-293-7141.

INFORMATION: 703-385-7837

Route 123 Bridge Replacement Continues

Construction to replace the aging bridge over Accotink Creek on Route 123/Chain Bridge Road at Kenmore Drive has begun, and is expected to

continue through autumn.

During the bridge replacement, northbound Chain Bridge Road traffic will be detoured. Southbound traffic will not be detoured unless it is required for

safety reasons, but lanes will shift in the work zone.

Sidewalks in the work zone will be closed. Pedestrians should follow the Chain Bridge Road detour. (See map, right.)

The detour will be in place for most of the duration of the project. Consider University Drive as an alternate north-south route to avoid the work zone.

Receive road condition alerts



City Establishes Domestic Beekeeping Permit, Rules

Aplarists have new opportunities

in the City of Fairfax with recent changes to City Code—and the establishment of a domestic beekeeping permit.

Recent City Code changes permit beehives based on the size of a property.

 from 5,000 square feet to a quarteracre: up to two beehlves

 quarter-acre or larger, up to four beehives

Residents must obtain a permit prior to acquiring honey bees. Applicant must provide a plat showing the proposed

location of the hives, signed affidavit of

understanding of the code and best management practices for beckeeping and, if the applicant is not the property owner, written permission from the property owner. There also a one-time \$20 permit application fee.

Previously, beekeeping was relegated to the agricultural section of the City Code. However, requests from city residents prompted the city to create a separate "Domestic Beekeeping" chapter of the City Code. For information, call 703-385-7805.

Farmers Markets in the City

Seturdays, 8 am to 1 pm Sundays, 10 am to 2 pm 10500 Page Avenue (edjacent to Historic Courthouse)

Sponsored by Downtown Feirfax Coalition • www.fairfaxaeturdaymerkat.com

City Council Adopts Budget for Fiscal Year 2014-15

The City of Fairfax City Council has approved the city's \$127.9 million general fund operating budget for fiscal year 2014-15, an increase of \$2.4 million, or 1.9 percent, from the previous year.

The total of all appropriated funds is \$160.9 million, an 8.2 percent decrease from the previous fiscal year's budget due to the city's transition away from providing water service.

City Council set the real estate tax rate at \$1.04 per \$100 of assessed value, a decrease of 2¢ from the previous year's adopted rate. In this rate, the budget maintains 2c on the real estate tax rate dedicated to the city's stormwater fund to address aging stormwater infrastructure and to meet future regulatory requirements. Homeowners, on average, could see an increase of about \$116 to their real estate tax bills due to the new tax rate and an average 4.5 percent value increase. Commercial property owners, on average, will see a decrease in their real estate tax bills because the average property value remained flat.

In the adopted budget, the City Council maintained the commercial and industrial real estate tax rate at 5.5¢ per \$100 of assessed value, which is used exclusively toward new transportation projects in the city. The Old Town Service District tax also remains unchanged at 6¢ per \$100 of assessed value.

Capital fund expenditures of \$5.5 million represent 4.3 percent of general fund expenditures.

The adopted budget reflects an increase of \$250,000 in the school tuition contract with Fairfax County Public Schools. The city is contractually obligated to pay for instructional costs based on a per-student formula.

City Council approved the proposed employee merit raises of 3.5 percent and public safety longevity steps of 3.5 percent, and added a 0.5 percent cost of living adjustment (COLA).

The City Council also approved a wastewater rate increase of 10 percent to meet the significant number of capital projects and debt service costs relating to the city's share of Fairfax County wastewater plant upgrades, where the city's wastewater is treated.

The adopted budget will be posted on the city's website by July 1, when the fiscal year begins, and a limited number of printed copies will be available to the public at that time. The proposed budget for fiscal year 2014+15 also is available.

For information, call 703-385-3973.



Mulch Available to City Residents As Supplies Last

City residents have access to free mulch through Fairfax County at the I-66 Recycling and Disposal Center, 4618 West Ox Road. Availability varies; call 703-324-5995 for information.

The Operations Division delivers mulch upon request to civic associations. (This service is not available to individuals or businesses.) A minimum of 30 cubic yards of mulch is delivered to a single location in the community. Availability varies; call 703-385-7995.

Please Clean Receptacles Regularly

Gity residents are asked to clean the interior of their trash cans and recycling bins on a regular basts. This makes the receptacle less enticing for animals and provides relief for city crews who provide collection service.

Shred Documents, Recycle Electronics

Free document shredding is available from 8 a.m. to noon June 21 at Oakton High School, 2900 Sutton Road, Vienna.

City residents may recycle their electronics equipment for free from 10 a.m. to 3 p.m. June 22 at the 1-95 Complex, 9850 Furnace Road, Lorton.

For information, call 703-324-5230.

Recycling, Disposal Information Available

- How to Dispose of Items in the City, regarding trash, recycling and more, and
- Curbside Recycling is Easier Than Ever, which is all about the city's curbside recycling service.

Visit the city's website (click on "Refuse & Recycling" on the home page) or call 703-293-7141.

Information: 703-385-7837

Fairfax City Water Quality Monitoring Report conducted by Potomac Environmental Research and Education Center

George Mason University

Samples were collected on

17-Dec-2012

Report date 7-Jan-2013

	Station A	Station B	Station C	Station D	
Parameter					
Time	10:25 AM	10:44 AM	11:00 AM	11:15 AM	
Temperature (oC)	8.28	8.25	7.96	7.93	
Specific Conductance (umho/cm)	218.0	382.2	436.8	370.1	
Dissolved Oxygen (mg/L)	13.52	12.03	11.04	10.65	
Dissolved Oxygen (% saturation)	113.3	101.0	92.3	88.9	
рH	7.04	6.99	6.81	6.92	
Turbidity (NTU)	0.87	0.39	1.82	2.03	
Nitrate + mitrite (mg/L as N)	0.17	0.72	1.01	0.69	
Total phosphorus (mg/L as P)	0.041	0.032	0.028	0.025	
Total suspended solids (mg/L)	3.9	4.5	6.1	6.5	
Volatile suspended solids (mg/L)	1.7	1.8	2.4	2.4	
Escherichia coli (#/100 mL)	162	91	220	109	
Latitude	38,853075	38.860637	38.861766	38.861645	
Longitude	77.279314	77.292603	<i>77.2775</i> 95	77.2 699 13	

Station Locations:

Station A: Daniels Run at St Andrews Dr.

Station B: Middle Fork Accotink Cr off Spring Lake Terr

Station C: Accotink Cr just above Old Lee Hwy Station D: Accotink Cr just below Pickett Rd

Methods

Parameter	Description	Reference
Temperature (oC)	Hydroleb DataSonde DSS	EPA 170.1
Specific Conductance (umho/cm)	Hydroleb DataSonde DSS	EPA 120.1
Dissolved Oxygen (mg/L)	Hydroleb DataSonde DSS	EPA 360.1
Dissolved Oxygen (% saturation)	Hydrolab DataSonde DSS	EPA 360.1
pH	Hydrolab DataSonde DS5	EPA 150.2
Turbidity (NTU)	Hach 2100 P Turbidimeter	
Nitrate + nitrite (mg/L as N)	Cd reduction using Hath Nitraver 5	EPA 353.3
Total phosphorus (mg/L as P)	Persulfate digestion/Ascorbic Acid	EPA 365.2 (modified)
	Modification: HACH PhosVer3 with Acid Per	sulfate DRB 200 reactor
Total suspended solids (mg/L)	Gravemetric with Whatman 984 AH filters	EPA 160.1 dried to 80°C
Escherichia coli (#/100 mL)	Membrane Pilter/Simultaneous Detection.	EPA 1604

Fairfax City Water Quality Monitoring Report conducted by Potomac Environmental Research and Education Center

George Mason University

Note: Samples were collected on

3/14/2013

	Station A	Station B	Station C	Station D
Parameter				
Time	11:52 AM	11:35 AM	11:10 AM	12:16 PM
Temperature (oC)	6.10	5.18	5.39	6.97
Specific Conductance (umho/cm)	321.4	441.5	679.8	592.0
Dissolved Oxygen (mg/L)	13.65	12.82	12.30	12.30
Dissolved Oxygen (% saturation) pH	109.9 7.11	101.1 6.83	97.3 6.71	99.4 6.97
Turbidity (NTU)	14.30	22.23	6.70	8.40
Nitrate + nitrite (mg/L as N)	0.83	1.21	1.30	1.08
Total phosphorus (mg/L as P)	0.031	0.026	0.023	0.022
Total suspended solids (mg/L)	8.5	6.0	5.0	5.1
Volatile suspended solids (mg/L)	2.1	1.5	1.1	1.1
Escherichia coli (#/100 mL)	100	843	137	127
Latitude	38.853075	38.860637	38.861766	38.861645
Longitude	<i>77.27</i> 9314	77 .29 2603	<i>77.27</i> 7595	77.269913

Station Locations:

Station A: Daniels Run at St Andrews Dr.

Station B: Middle Fork Accotink Cr off Spring Lake Terr

Station C: Accotink Cr just above Old Lee Hwy Station D: Accotink Cr just below Pickett Rd

Methods

Parameter	Description	Reference
Temperature (oC)	Hydrolab DataSonde DS5	EPA 170.1
Specific Conductance (umho/cm)	Hydrolab DataSonde DS5	EPA 120.1
Dissolved Oxygen (mg/L)	Hydrolab DataSonde DS5	EPA 360.1
Dissolved Oxygen (% saturation)	Hydrolab DataSonde DS5	EPA 360.1
pН	Hydrolab DataSonde DS5	EPA 150.2
Turbidity (NTU)	Hydrolab DataSonde DS5	EPA 180.1
Nitrate + nitrite (mg/L as N)	Cd reduction using Hach Nitraver 5	EPA 353.3
Total phosphorus (mg/L as P)	Persulfate digestion/Hach Phosver 3	EPA 365.2,
		modified for Hach
Total suspended solids (mg/L)	Gravimetric with Whatman 984AH filters	EPA 160.1 dried to
		80oC
Escherichia coli (#/100 mL)	Membrane Filter/Simultaneouse Detection	EPA 1604

Fairfax City Water Quality Monitoring Report

conducted by

Potomac Environmental Research and Education Center

George Mason University

Note: Samples were collected on

6/27/2013

	Station A	Station B	Station C	Station D
Parameter				
Time	10:02 AM	10:25 AM	10:42 AM	10:57 AM
Temperature (oC)	21.55	21.84	22.65	23.26
Specific Conductance (umho/cm)	214.2	408.8	451.6	358.4
Dissolved Oxygen (mg/L)	8.04	7.85	6.89	6.94
Dissolved Oxygen (% saturation) pH	91.5 7.11	89.9 7.18	80.4 6.94	81.9 7.01
Turbidity (NTU)	0.20	0.50	2.80	3.70
Nitrate + mitrite (mg/L as N)	0.60	1.12	1.22	0.86
Total phosphorus (microgram/L as P)	62.93	45.78	34.87	42.67
Total suspended solids (mg/L)	4.4	1.7	2.7	3.4
Volatile suspended solids (mg/L)	1.1	0.4	0.8	0.6
Escherichia coli (#/100 mL)	197	1103	337	483
Latitude	38.853075	38.860637	38.861766	38.861645
Longitude	<i>77.27</i> 9314	77.292603	77.277595	77.269913

Station Locations:

Station A: Daniels Run at St Andrews Dr.

Station B: Middle Fork Accotink Cr off Spring Lake Terr Station C: Accotink Cr just above Old Lee Hwy Station D: Accotink Cr just below Pickett Rd

70 67 47	-
B. Leef D.	

Parameter	Description	Reference
Temperature (oC)	Hydrolab DataSonde DS5	EPA 170.1
Specific Conductance (umbo/cm)	Hydrolab DataSonde DS5	EPA 120.1
Dissolved Oxygen (mg/L)	Hydrolab DataSonde DSS	EPA 360.1
Dissolved Oxygen (% saturation)	Hydrolab DataSonde DSS	EPA 360.1
pH	Hydrolab DataSonde DSS	EPA 150.2
Turbidity (NTU)	Hydrolab DataSonde DS5	EPA 180.1
Nitrate + nitrite (mg/L as N)	Cd reduction using Hach Nitraver 5	EPA 353.3
Total phosphorus (mg/L as P)	Persulfate digestion/Ascorbic Acid	EPA 365.2, modified for Hach digester
Total suspended solids (mg/L)	Gravimetric with Whatman 984AH filters	EPA 160.1 dried to 80oC
Escherichia coli (#/100 mL)	Membrane Filter/Simultaneouse Detection	EPA 1604

Fairfax City Water Quality Monitoring Report
conducted by Potomac Environmental Research and Education Center

George Mason University

Note: Samples were collected on 9/23/2013

	Station A	Station B	Station C	Station D
Parameter				
Time	2:32 PM	2:17 PM	1:55 PM	2:49 PM
Temperature (oC)	15.46	15.72	16.18	18.24
Specific Conductance (umho/cm)	110.0	167.0	78.0	173.0
Dissolved Oxygen (mg/L)	9.46	9.51	8.32	8.06
Dissolved Oxygen (% saturation) pH	94.8 7.29	95.4 7.23	84.9 6.93	85.7 6.96
Turbidity (NTU)	2.40	3.00	7.70	7.80
Nitrate + nitrite (mg/L as N)	0.07	0.49	0.74	0.39
Total phosphorus (mg/L as P)	35.65	29.41	38.77	46.56
Total suspended solids (mg/L)	7.2	7.8	11.5	7.8
Volatile suspended solids (mg/L)	2.2	2.0	3.2	1.8
Escherichia coli (#/100 mL)	523	3100	2633	2100
Latitude	38.853075	38.860637	38.861766	38.861645
Longitude	77.279314	77.292603	77.2775 9 5	77.269913

Station Locations:

Station A. Daniels Run at St Andrews Dr.

Station B: Middle Fork Accotink Cr off Spring Lake Terr

Station C: Accotink Cr just above Old Lee Hwy Station D: Accotink Cr just below Pickett Rd

Methods

Parameter	Description	Reference
Temperature (oC)	Hydrolab DataSonde DS5	EPA 170.1
Specific Conductance (umho/cm)	Hydrolab DataSonde DS5	EPA 120.1
Dissolved Oxygen (mg/L)	Hydrolab DataSonde DS5	EPA 360.1
Dissolved Oxygen (% saturation)	Hydrolab DataSonde DS5	EPA 360.1
pH	Hydrolab DataSonde DS5	EPA 150.2
Turbidity (NTU)	Hydrolab DataSonde DS5	EPA 180.1
Nitrate + nitrite (mg/L as N)	Cd reduction using Hach Nitraver 5	EPA 353.3
Total phosphorus (mg/L as P)	Persulfate digestion/Ascorbic Acid	EPA 365.2, modified
		for Hach digester
Total suspended solids (mg/L)	Gravimetric with Whatman 984AH filters	EPA 160.1 dried to
		80oC
Escherichia coli (#/100 mL)	Membrane Filter/Simultaneouse Detection	EPA 1604

What Citizens Can Do

Get Involved. This is one of the most important things you can do to help protect the city's streams and creeks. Make an effort to find out what is going on in your community regarding water quality issues. You can do this by attending public meetings, joining a local watershed organization or scheduling a time to meet with local officials. You can also sign up through the city's <u>eMAS</u> program to be notified of upcoming environmental events. The City encourages you to ask questions and get involved. To find out more about how you can help contact <u>Christina Alexander</u>.

How You Can Help:

- Dispose of household and automobile chemicals and other waste products
 properly. Dispose of your home chemicals such as paint, solvents, cleaning agents, motor oil,
 antifreeze, batteries and mercury properly. Never pour any of these materials into a sewer or
 storm drain. The homeowner must take pesticides, oil-based paint, gasoline, thinner and other
 hazardous waste to the Fairfax County transfer station located at 4618 West Ox Road. For
 more information refer to the city's website or call 703.385.7995.
- Dispose of pet waste properly. Clean up pet waste. Pet waste that is not disposed of
 properly may wash into the nearby storm drains and into the local waterways. Animal waste
 adds harmful bacteria and nutrients to the streams that can be harmful to humans and
 wildlife.
- Do not dump anything into the storm drain. Properly dispose at all hazardous materials such as motor oil, paint and antifreeze. Anything dumped into the storm drain eventually reaches the city's streams and the Chesapeake Bay. The City of Fairfax has a volunteer program to help place storm drain markers on storm drains throughout the city. For more information, contact Christina Alexander.
- **Fix plumbing leaks and conserve water.** A tiny leak can add up to a gallon in minutes. Saving water saves you money. For more information, visit Fairfax City's wise water page.
- Sweep up debris on sidewalks instead of washing it away with a garden hose. By
 volume, sediment is one of the largest pollutant sources entering the nation's streams and
 rivers. The dirt and gravel that runs off our sidewalks and streets has a negative impact on the
 water quality of the city's creeks and streams.
- **Drive less.** Take the metro, CUE bus, carpool, ride a bike, or plan your trips to be more efficient. You'll save money on gasoline and reduce air pollution. Particles from air pollution also have an impact on water quality.
- Keep your car tuned and periodically check for fluid leaks. This keeps oil from leaking
 onto the ground and can increase gas mileage, saving you money and protecting the
 environment by reducing water and air pollution.
- Wash your car or other outdoor equipment at a commercial carwash instead of at
 your home. The grease, oil and other chemicals that we wash off these items can run off of
 our driveways and lawns and enter the storm sewer system and eventually discharge to local

streams and rivers. Even the soaps we use to clean these items can cause problems for some aquatic life.

- Use cat litter or other absorbents to soak up spills. Never wash spills away with a garden hose. Pour cat litter on oil leaks and other household chemical spills to soak them up.
- Properly maintain your septic system. If you have a septic system at your home, it is
 important to ensure that it is functioning properly.

Around the Yard:

- Use less lawn chemicals and always follow the label directions. Rains can wash away your fertilizers and pesticides, which is a big waste for you and toxic for aquatic life. Do not use chemicals on your lawn before it is expected to rain, and try using organic or slow-release products, which are better for your lawn and for the environment. Be conservative with pesticides and herbicides (weed killers) and try natural alternatives. The Virginia Cooperative Extension offers assistance with many services including soil testing and assistance in determining how much fertilizer to use on your lawn and insect, disease and weed control assistance. For more information contact the Virginia Cooperative Extension location in Fairfax County at (703) 324-5369.
- Clear street gutters and storm drains of trash, leaves and grass. Trash may clog drains and cause your street to flood in a storm. Leaves and grass wash to our creeks and streams where they decay, reducing the oxygen in the water that fish need to survive. Trash and debris can also cause numerous problems for fish and other aquatic animals.
- Compost leaves, branches and grass clippings. Compost makes great mulch for your garden or flowerbed. Leave grass clippings on the lawn as you mow to return nutrients to your lawn. For more information on composting go to <u>Refuse & Recycling</u>
- Pick up trash and litter in your yard. Much of the trash in our yards and along roadways will eventually find its way to a stream or river. This not only adds to a streams pollutant level, but fish and some birds can become trapped or choke on some types of trash and die.
- Reduce the amount you water your lawn. Lawns need less than an inch of water per week. If it rains an inch, do not water. Try using a rain gauge.

For More Information on Environmental Issues, Check Out The Below Links:

- VA Department of Conservation and Recreation
- US Environmental Protection Agency
- Chesapeake Bay Foundation

- Center for Watershed Protection
- Storm water Manager's Resource Center
- Only Rain Down the Storm Drain
- Help the Chesapeake Bay in Your Home

FOR MORE INFORMATION:

Thank you for interest in helping the City of Fairfax protect our streams and the environment. If you would like additional information on the City's stormwater and floodplain management programs or on how you can help, contact:

Christina Alexander, Stormwater Resources Engineer City of Fairfax Department of Public Works 10455 Armstrong Street Fairfax, Virginia 22030

Phone: (703) 273-3067 Fax: (703) 591-5727

E-mail: Christina.Alexander@fairfaxva.gov

Hours: 8:30 AM to 5:00 PM, Weekdays

What Children Can Do

Students Can Make a Difference in the City of Fairfax

- What can children do to protect our water resources?
- Helpful Student Links. Here are some ways to get involved starting today!
- For More Information

Students at Daniel's Run Elementary helped the City of Fairfax create storm drain markers. First - graders all the way to fifth graders helped to contribute to the final storm drain marker than can now be seen all across the city.

What Children Can Do To Protect Our Water Resources

Clean up after your pets.

Pet waste that is not disposed of properly may wash into the nearby storm drains and into the local waterways. Dog waste adds harmful bacteria and nutrients to the streams that can be harmful to humans, pets and wildlife.

Never put anything down a storm drain (those big holes in the curbs).

Storm drains lead directly to the City's creeks and streams. Get your school, youth group or family to volunteer to place storm drain markers on storm drains in your neighborhood. The markers, designed by students at Daniels Run Elementary School, help to educate residents about the importance of not dumping anything down the storm drains. Contact the Special Projects Engineer at 703-385-7816 for more information on how you can help.

Report dumping activities.

If you see anyone dumping materials into the storm drain or stream, contact the City of Fairfax Fire Marshall at 703-385-7830 or the Police Department at 703-385-7924.

Don't litter!

This means that you should never throw any trash (like cups, paper, tissues and candy wrappers) on the ground. Ask your family members not to litter too. When it rains the litter washes down the storm drains to the city's streams where is degrades the quality of the water and can harm animals.

Compost or properly dispose of leaves and grass clippings.

Keep your leaves and grass clippings out of the streets so that they do not end up washing into the storm drain inlets.

Helpful Student Links: here are some ways to get involved starting today!

- Virginia Department of Environmental Quality www.deg.virginia.gov/kids/
- Chesapeake Bay Program www.chesapeakebay.net/index students.cfm
- US Environmental Protection Agency <u>www.epa.gov/students/</u>
- See what <u>Stormy the Raindrop</u> says about keeping our stormwater clean.

For More Information

Thank you for interest in helping the City of Fairfax protect our streams and the environment. If you would like additional information on the City's storm water management programs or on how you can help, contact:

City of Fairfax, Virginia Department of Public Works 10455 Armstrong Street Fairfax, Virginia 22030

Phone: (703) 273-3067 Fax: (703) 591-5727

E-mail: Christina.Alexander@fairfaxva.gov

Protecting Water Resources

The City of Fairfax has many residential homes, businesses and streets that hinder the natural flow of storm water. With these obstacles come many challenges to preserve the water supply, and the environment both within the city and in the entire Chesapeake Bay watershed. The City of Fairfax invites residents and business owners to help in the city's efforts to protect our natural resources.

A major contributor to contamination of our waterways is polluted surface water runoff that results from a rainstorm. This water is generally referred to as storm water runoff. Pollution from a variety of sources degrades storm water runoff as it enters the city's streams making them unsafe for drinking, fishing, swimming, and other activities. Storm water flows over land into ditches, streams or storm sewers all of which eventually reach Accotink Creek and the Chesapeake Bay. Storm water can pick up oils, litter, sediments, fertilizers, pesticides, herbicides, and pathogens as its travels across roads, buildings, lawns, and parking lots. These pollutants enter the city's streams and creeks where they can have very harmful effects on the water quality of the city's streams and the streams downstream of the city.

The City of Fairfax is dedicated to educating the public about the harmful impacts of polluted storm water runoff so that the citizens can become partners with the city to restore and protect our streams. Storm water runoff is produced every time rain or snow is not absorbed directly into the soil. When land is paved the storm water can no longer infiltrate into the ground where it can be naturally filtered by the earth's soil. Based on area studies, it is known that a significant amount of water pollution going into the Chesapeake Bay is a result of storm water discharges that are collectively called "nonpoint" sources.

One of the latest trends in the control of nonpoint source runoff for developing sites is called Low Impact Development (LID). LID was developed in the 1990's as a method to mitigate the impacts from the increases in storm water runoff that generally result from typical land development practices. When buildings and parking lots are constructed, the imperviousness of the land is significantly reduced so that water can no longer infiltrate into the ground. The goal of LID focuses on how to develop an area to minimize the hydrologic impacts created when you reduce the imperviousness of the area so that the site better mimics a natural watershed. LID attempts to combine site planning, land development, and storm water management with ecosystem protection. LID is an excellent tool to help control non-point source pollution and their impacts to community's streams. LID is most effective in areas where development is just starting. However, LID is a useful tool and can provide benefit to urban areas in helping to reduce the imperviousness of the land. Several design manuals currently exist for homeowners, planners, engineers, and landscape architects who wish to implement LID techniques. For more information, visit www.epa.gov

Energy

Reducing our electricity consumption can help improve our air quality, reduce our dependence on foreign fuels, curb our greenhouse gas emissions, reduce the risk of blackouts, and save us all money on electric bills.



Energy Saving Tips

Information on how to save energy and reduce your utility bills.



Home Performance with ENERGY STAR

Save 20% or more on your utility bills, make your home healthier and more comfortable and add value to your house. The Local Energy Alliance Program (LEAP) is a community based non-profit organization that can help homeowners earn a Home Performance with ENERGY STAR Certificate. Information about this program and how to apply. http://leap-va.org/



Weatherization Assistance Program

Information on the U.S. Department of Energy's (DOE) Weatherization Assistance Program and how to apply. This program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient. During the last 30 years, the Weatherization Assistance Program has provided weatherization services to more than 5.5 million low-income families.



Site Plan LEED Checklist Submission

Information on the City's resolution to encourage developers to meet the requirements for a LEED certified building and that requires the submittal of a LEED checklist with their site plan application.

Energy Saving Tips for Homeowners

Increased energy demands are impacting our regions air quality. To help reduce energy consumption, you can change a few ways that you use energy in your home by adopting the following practices:

- Turn off lights when no one is in the room.
- Install energy efficient light bulbs that have received the Energy Star rating.
- Keep air vents clear of furniture and paper. Additional energy up to 25 percent can be required to distribute air when vents are blocked.
- Find and seal air leaks in your home to keep out hot or cold air.
- Install a programmable thermostat to reduce energy use when no one is home.
- In the winter, open south facing blinds to allow sunlight to provide natural heating and close blinds at night to reduce heat loss.
- Turn off and unplug printers, copiers, fax machines, cell phone battery chargers, power adapters and appliances when they are not in use.
- Turn off computers and monitors when not in use.
- Choose Energy Star rated appliances and electronics when available.
- Limit use of paper and plastic products and use reusable products to reduce the amount of waste that has to be transported to the landfill.
- Carpool or walk to work if possible.
- Check your tire pressure as fuel efficiency is reduced if your car tires have low pressure.
- Install energy efficient light bulbs that have received the Energy Star rating. For information
 on compact fluorescent bulbs and proper disposal visit Energy Star.

For more information, go to:

- Energy Star
- Energy Saving Tips and Information
- Federal Tax Credits for Consumer Energy Efficiency
- Energy Savers Guide
- Virginia Energy Sense

WEATHERIZATION FAQ'S AND ELIGIBILITY REQUIREMENTS

1) What is the weatherization program?

The Weatherization Assistance program provides funds to reduce the heating and cooling costs for low-income families and to ensure their health and safety. The program provides repairs and improvements to home heating and cooling systems, and provides for the installation of energy-saving measures in the house.

2) Who can apply?

The services are for low-income families, particularly for households that have elderly persons, individuals with disabilities, and families with children.

3) How do I know if I qualify for assistance?

Usually households qualify based on their income. Using the table below, you can see the maximum amount that can be earned in order to qualify. Income Limits

4) What if my household earns more than what is listed in the income table, can I still qualify?

There are some exceptions to the income rule. Generally, households receiving cash payments under Titles IV and XVI of the Social Security Act are eligible. To be certain, you should call you local weatherization provider.

5) How do I get started?

Call you local weatherization provider. A list of weatherization providers is available online. Once you have located the local provider, call them and let them know that you are interested in applying for assistance under the weatherization program.

6) I rent, am I still eligible to receive assistance?

Yes, this program is for homeowners and renters.

7) What kind of work will be performed?

First, staff from the weatherization provider will call to schedule a time to meet you and to perform an audit of your home. The audit will help them to help identify the best energy-saving measures that are cost effective, healthy, and safe.

Typical weatherization services include:

- Sealing air leaks with insulation, caulking, and weather-stripping;
- Installation of ventilation fans;
- Repairing drafty duct systems;
- · Repairing and replacing inefficient or unsafe heating and cooling systems; and
- Installation of energy efficient lighting

The Weatherization Assistance program also checks for health and safety risks, including testing for carbon monoxide levels and installing fire alarms where necessary. Recipients are also educated about proper use and maintenance of all installed systems.

8) Is there any cost for me?

The work is provided at no cost to you.

9) Where can I get additional information?

The Weatherization Providers Listing provides information on weatherization providers in your area where you may apply for home weatherization. For more information, email brett.jackson@dhcd.virginia.gov.

Site Plan LEED Checklist Submission

City of Fairfax

Department of Community Development and Planning

Submission of LEED 2009 Project Checklist

The City Council of the City of Fairfax approved a resolution recommending the incorporation of green building practices and climate protection strategies for development and operations in the City of Fairfax. The city is encouraging developers to meet the requirements for a LEED certified building. One of the conditions of the resolution requires developers to submit a LEED checklist with their site plan application. Since many aspects of the building design may not be known at the time of initial site plan submission, applicants should submit a revised checklist with final submission.

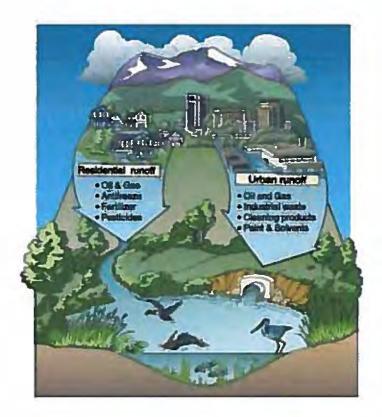
The LEED 2009 checklist contains seven categories of items related to sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design and regional priority. The checklist should be submitted with a brief statement as to how each credit point will be achieved. The checklist and guidance document for LEED 2009 for New Construction and Major Renovations can be found at U.S. Green Building Council's website.

For any questions related to the LEED checklist, you can contact Stefanie Kupka at 703.385.7816 or email.

Stormwater Information

What is Stormwater?

A major contributor to contamination of our waterways is polluted surface water runoff that results from a rain or snow storm. This water is generally referred to as storm water runoff. Pollution from a variety of sources degrades storm water runoff as it enters the city's streams making them unsafe for drinking, fishing, swimming, and other activities. Storm water flows over land into ditches, streams or storm sewers all of which eventually reach Accotink Creek and then out to the Chesapeake Bay. Storm water can pick up oils, litter, sediments, fertilizers, pesticides, herbicides, and pathogens as its travels across roads, buildings, lawns, and parking lots. These pollutants enter the city's streams and creeks where they can have very harmful effects on the water quality of the city's streams and the streams downstream of the city.

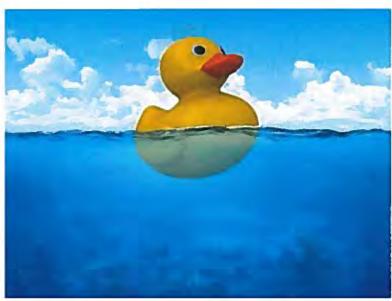


The City of Fairfax is dedicated to educating the public about the harmful impacts of polluted storm water runoff so that the citizens can become partners with the city to restore and protect our streams. Storm water runoff is produced every time rain or snow is not absorbed directly into the soil. When land is paved the storm water can no longer infiltrate into the ground where it can be naturally filtered by the earth's soil. Based on area studies, it is known that a significant amount of water pollution going into the Chesapeake Bay is a result of storm water discharges that are collectively called "nonpoint" sources.

There are several ways citizens can help protect our streams from home. To see how you can help, please visit the <u>Protecting our Water Sources</u> area of our website for detailed information on:

- Reporting Illicit Discharges
- What Citizens Can Do
- What Students Can Do

"Only Rain Down the Drain"





"'Only rain down the storm drain,' That's the motto of the Northern Virginia Clean Water Partners. Our goal -- cleaner streams for our residents and a healthier Chesapeake Bay for all." The Northern Virginia Clean Water Partners (NVCWP) represent 11 Northern Virginia local governments, two independent water and sanitary sewer authorities, and local businesses that care about the quality of our waterways and the region's quality of life. Polluted stormwater runoff is the number one cause of poor quality of river and stream water in Northern Virginia that also serves as the sources of our drinking water. Their goal is to work together to keep local residents healthy and safe by reducing the amount of pollution that reaches local creeks and rivers. Please visit the website, www.onlyrain.org for more information.

Additional Resources:

Environmental Protection Agency: www.epa.gov

Department of Environmental Quality: www.deq.virginia.gov

Virginia Stormwater BMP Clearinghouse: http://vwrrc.vt.edu/swc/RegulatoryPrograms.html

Chesapeake Bay Foundation: www.cbf.org
Center for Watershed Protection: www.cwp.org

Storm Water Managers Resource Center: www.stormwatercenter.net

Mosquito Issues Relating to SWM Facilities

- Storm sewers provide breeding grounds for the principle mosquito species that spreads the West Nile virus.
- Preventing pooling of stagnate water and treating storm sewers with larvacide will assist in the reduction mosquito breeding.
- It is the owner's responsibility to inspect and treat its own facilities. However, if mosquito larvae are found during a city facility inspection, the City of Fairfax will treat the facility with larvacide.
- For more information on mosquito issues, contact the <u>Fairfax County Health Department</u> at 703-246-2300.

City of Fairfax Streams

- City of Fairfax Streams
- The Accotink Creek Restoration Project
- The Accotink Creek USGS Water Quality Gauging Station

The City of Fairfax has taken an active role in restoring the city's stream channels. The need for stream channel restoration is a result of the increase in stormwater flows over the years. The main source of this increase is from development in the city. When open areas are developed and paved, the amount of runoff increases because the infiltration capacity of the land is reduced. This water enters the storm drains, which eventually drains to the city's open stream channels.

Current city regulations require stormwater management for new developments and redevelopment (see City of Fairfax Code). Stormwater management is a means to control excess storm runoff resulting from the development of a site. Stormwater management measures include stormwater management ponds and underground detention vaults to hold excess stormwater so that it can be released at a rate equal to the water leaving the site prior to development. Because much of the city was development prior to the issuance of stormwater management regulations, there is a significant amount of uncontrolled stormwater entering the city's stream channels. Many of the streams are not able to handle the existing storm flows, which has resulted in severe stream bank erosion and increased sediment loading.

To address the stormwater issues in the city, a Stormwater Capital Needs Study was completed in 1993. The results of this study indicated that citywide stream restoration was recommended to ensure the streams could handle the storm flows without eroding the stream banks. Based on this report, a stormwater bond was proposed and subsequently approved by the voters in 1994. With the availability of funding, a program was initiated in 1994 to stabilize and restore the city stream channels. To date, the city has restored over 4 miles of stream channel. To continue this work, the City Council has set up a stormwater fund to complete the work necessary to restore the remaining eroded stream channels throughout the city.

In the spring of 2002, the city completed stream restoration improvements on the North Fork of Accotink Creek from Stafford Drive to Lee Highway. Design is currently in progress to continue stream restoration improvements from Lee Highway to Pickett Road.

For more information, citizens can refer to the city's brochure The Accotink Creek Restoration Project and an article that appeared in American City & County titled Restoring Streams Key in City's Stormwater Work. Other links to stream restoration are:

www.epa.gov/owow/restore/ Restoring Streams Article

The Accotink Creek Restoration Project

WHAT IT IS... HOW YOU CAN HELP

What was wrong with Accotink Creek? Why did it need a restoration project?

Accotink Creek, a stream whose headwaters are located within the city limits of Fairfax, has been in trouble for many years from uncontrolled runoff that deepened the creek's channel, widened the stream, deposited sediment on important aquatic habitat and caused erosion. Many of the fish and other aquatic life, which are important for the Creek's viability, began to disappear.

Restoring Accotink Creek was necessary to reduce loss of property, restore public safety, stop the destruction of downstream habitat and restore aquatic life native to Fairfax.

What did the City of Fairfax do to restore Accotink Creek? What were the results?

The City of Fairfax implemented an ambitious program to restore Accotink Creek to its natural state by contracting with a team of expert stream restoration biologists, ecologists and engineers who developed special techniques of "bioengineering" to restore the Creek.

The restoration project stabilized the banks of Accotink Creek, stopped erosion in the stream and restored the habitats that previously existed in the stream and along its banks.

What are these "bioengineering" techniques that were used to restore Accotink Creek? How do they work?

Bioengineering is the analysis, application and use of natural structures to help repair, restore or stabilize sensitive habitats. The three main bioengineering techniques that you can see at work along Accotink Creek are root wads, biologs and riparian reforestation. These techniques are defined in the glossary section.

What you should NOT DO if you want to help protect Accotink Creek...

- * Never cut your lawn shorter than 1.5 inches.
- * Do not apply fertilizers and pesticides indiscriminately. These chemicals are harmful to aquatic life and often are unnecessary.
- * Never put oil, gasoline, paint or other toxic substances into storm drains. Everything that enters a storm drain in the Accotink Creek watershed goes into the Creek sooner or later.
- ...never forget that the watershed starts in your backyard!

What you can DO to help keep Accotink Creek a viable, usable, ecologically sound waterway...

Everyone who lives in the watershed of Accotink Creek has an impact on the quality of the Creek's habitats.

- * Consider alternatives to grass as a lawn cover. Wildflowers or clover meadows make attractive and less ecologically damaging lawn covers.
- * Keep the grass in your lawn at least 1.5 inches long. Taller grass actually reduces weed growth and is better at retaining soil moisture.

- * Consider planting more trees around your house. Trees near Accotink Creek protect the stream, and trees will benefit you by providing more shade, adding to your house's value and reducing lawn mowing time.
- * Only fertilize and apply pesticides to your lawn and garden when absolutely necessary. There usually is no need to apply fertilizers and pesticides regularly to lawn turf.
- * Contact your extension agent for information on the best grasses to plant and how to use chemicals appropriately.
- ...always remember that the watershed starts in your backyard!

Glossarv

Here are definitions of some terms used in discussing the Accotink Creek restoration project:

Aquatic Habitat: A place in or upon water where a plant or animal grows or lives.

Biologs: Rolls of coconut fiber used to stabilize the bottom of steep slopes along Accotink Creek where the movement of water against the soil can hamper the growth of new vegetation. Biologs, which are planted with native perennial plants that grow quickly and strongly, provide the conditions and protection that plants need to become established. Biologs will decompose and the new plants naturally will stabilize the stream banks.

Ecology: The study of the relationships among and between animals, plants and their environments.

Riparian Reforestation: All along the banks of Accotink Creek, you will see newly planted trees and shrubs. This new vegetation will slow runoff, provide habitat for wildlife and provide shade and cooling for organisms living in the stream.

Root Wads: Roots from dead trees, which usually would have been discarded or destroyed, have been placed along the eroding outside bends of Accotink Creek to deflect the water from the bare soils along the bank. This provides natural cover for aquatic organisms and provides a growing medium for new vegetation that will grow in and around these root wads to provide natural stabilization for a long time.

Runoff: Water that is unable to soak into the ground will flow over land until it can be absorbed by the ground or flow into a stream channel. Runoff often causes erosion and carries sediment that will end up in the stream.

Watershed: Accotink Creek's drainage area.

Funding

Funding for the restoration of Accotink Creek is provided by the City of Fairfax Bond and Stormwater Funds and by a Chesapeake Bay Habitat Restoration Grant.

Information

For more information on what you can do to help the Accotink Creek restoration, call 703.273.3067 or write:

Christina Alexander Public Works 10455 Armstrong Street

Fairfax, VA 22030

The Accotink Creek USGS Water Quality Gauging Station



This station collects water samples during storms which are then analyzed in the lab by the United States Geological Survey (USGS). The USGS is a federal science organization that, in part, 'provides impartial information on the health of our ecosystems and environment'. This station also records data such as temperature and pH around the clock and periodically sends it back to USGS servers via satellite transmissions.

Accotink Creek, a stream whose headwaters are located within the City of Fairfax, receives a high volume of uncontrolled runoff during storm events. To combat the erosive storm flows the City of Fairfax implemented an ambitious program to restore Accotink Creek to its natural state by contracting with a team of expert stream restoration biologists, ecologists and engineers who developed special techniques of "bioengineering" to restore the Creek. Goals of the restoration project were to stabilize the banks of Accotink Creek, stop erosion in the stream, and restore the habitats that previously existed in the stream and along its banks. The study that the USGS is now conducting in partnership with the city of Fairfax seeks to evaluate the effectiveness of stream restoration in meeting those goals, and, in general, understand the processes within the stream that impact water quality and ecosystem health. Funding and monitoring for this station are provided by the USGS.

To view real time data from the Accotink Creek gauging station visit the USGS website at http://waterdata.usgs.gov/nwis/uv?site_no=0165389205

Municipal Separate Storm Sewer System (MS4)

The City of Fairfax is regulated under the Virginia Department of Environmental Quality to discharge stormwater under the Virginia Pollutant Discharge Elimination System (VDPES) general permit. This permit allows the City of Fairfax to discharge stormwater per the State and Federal Laws created from the Clean Water Act. The Municipal Separate Storm Sewer System (MS4) is a required document prepared by the City each permit cycle to outline the planning of activities the city is doing to reduce stormwater runoff pollution to the maximum extent practicable. The City of Fairfax is considered a Phase II MS4.

In March 2013, the Virginia Soil & Water Conservation Board approved a new general permit that became effective July 1, 2013.

The MS4 Program must include an MS4 Program Plan that includes six minimum control measures and Special Conditions for approved Total Maximum Daily Loads (TMDL) for the Chesapeake Bay TMDL and non-Chesapeake Bay TMDLs. The six minimum control measures are:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff
- Post-Construction Stormwater Management in New Development and Redevelopment On Prior Developed Lands
- Pollution Prevention/Good Housekeeping for Municipal Operations

Information on each of these minimum control measures, Special Conditions for Chesapeake Bay TMDL and non-Chesapeake Bay TMDLs, and their specific requirements can be found in the **General Permit**.

Permits

- 2013
- 2012
- 2011 Part 1
- 2011 Part 2
- 2010
- 2009

MS4 Stormwater "Outfalls" Inventory

This inventory involves identifying, inspecting and mapping stormwater "outfalls" – every point where a conveyance of the City of Fairfax's stormwater system discharges into streams, lakes, and wetlands. There are currently 145 known outfalls in the City of Fairfax.

APPENDIX C-2

Exhibits for Minimum Control Measure # 2- Public Participation

Example of Sticker for Storm Drain Markings in the City Of Fairfax Stormwater Management - City of Fairfax Website

Flood Plain Information- City of Fairfax Website Chesapeake Bay Ordinance- City of Fairfax Website

Watershed Management Information- City of Fairfax Website Northern Virginia Clean Water Partners 2014 Summary

Northern Virginia Regional Commission in Banner Campaign Recap

Environment and Sustainability- City of Fairfax Website

Environmental Sustainability Committee- City of Fairfax Website

Fall Festival Environmental Sustainability Committee Pictures

City Of Fairfax Environmental Sustainability Committee Annual Report 2013

City of Fairfax Stream Spring Cleanup Pictures and Flyer from 4-27-2013

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BMP and Stormwater Management Inspection Program

Stormwater Best Management Practices (BMP)

BMPs are control measures taken to address post-construction stormwater management changes from upstream land use changes, through various measures, techniques and structure controls. These BMPs are used to control and manage the quantity and improve the quality of the stormwater runoff discharging to them. All BMPs are put in place to mitigate the effects of upstream development by reducing the amount of runoff volume while improving the quality of the water that enters them. The ultimate goal of a BMP is to reduce or eliminate the amount of contaminants and pollutants that enter the City of Fairfax streams and eventually the Chesapeake Bay waters. Having BMPs in place and being well maintained annually is critical in achieving the water quantity requirements in accordance with the City of Fairfax Stormwater Ordinance and MS4 permit.

BMP Inspections and Maintenance

To comply with state regulations including our Municipal Separate Storm Sewer System (MS4) permit from the Virginia Department of Environmental Quality (DEQ), the City operates a Virginia Stormwater Management Program (VSMP). The VSMP and MS4 permits are regulated and authorized by the federal Clean Water Act. It is the City's obligation to oversee these BMP and Stormwater Management facilities in order to comply with our state permit.

Stormwater facilities remove pollutants from stormwater and prevent downstream flooding. In general, BMP and Stormwater Management facilities include constructed infiltration systems, detention facilities, specific landscaping elements like bio-retention systems, and various manufactured systems. All types of BMPs are designed to mitigate the effects of development by reducing runoff volume and rates while promoting the removal of pollutants and improving runoff quality. These BMPs are critical in achieving greater water quality in accordance with the City of Fairfax's Stormwater Management Ordinance and MS4 permit.

Although all BMP and Stormwater Management facilities are installed and constructed according to an engineered plan, these stormwater control facilities will not function correctly unless they are properly maintained. Pursuant to the BMP Maintenance and Monitoring Agreement, Erosion and Sediment Control Plan, or Site Plan governing the facilities throughout the City, it is responsibility of the owner(s) to maintain the facility in good working order. In turn, the City's role and responsibility is to assess annually such facilities to ensure proper maintenance is being performed in accordance with the suggested maintenance schedule for each facility. The maintenance agreement, Erosion and Sediment Control plan or Site Plan, provides the City of Fairfax with authority to conduct inspections of BMPs and Stormwater Management Facilities.

The City will conduct a City-wide assessment to ensure all facilities are in working order on an annual basis. A representative from the City of authorized consultant will visit your property (or HOA property) to conduct an inspection of the stormwater control measures and BMPs in place.

The general inspection process is as follows:

- · The City will send out letters to all facility owners informing them of the inspections.
- The City or authorized consultant will walk the facility, note the in-field conditions, take photos and then compare the field conditions to the original plans for the facility.
- The City or authorized consultant will document the observed conditions of the relevant infrastructure and create an inspection report based on the facilities maintenance requirements.
- Annual inspection reports will be sent out upon request, unless a deficiency is found. If a
 deficiency is found, a letter with further action items will be sent out to the owner of the
 facility.

The inspection and report are at no cost to the owner or HOA.

Recommended BMP or Stormwater Management Facilities Maintenance Helpful Links for Owners

Maintaining Stormwater Systems, A Guidebook for Private Owners and Operators in Northern Virginia

Virginia Stormwater BMP Clearinghouse

City of Fairfax BMP Agreement

For more information or guidance on BMPs and Stormwater Management, contact the Department of Public Works at **703-385-7810** or <u>email the Stormwater Engineer</u>.

Flood Plain Information

FEMA Flood Plain

The City of Fairfax participates in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). As a participating community, property owners in the City of Fairfax can purchase insurance through this Federal Government program to protect against losses from flooding. In conjunction with this program, the city is provided with a Flood Insurance Rate Map (FIRM) that shows the limits of Special Flood Hazard Areas (SFHA). The SFHA is an area of land that would be inundated by a flood having a 1-percent chance of occurring in any given year. The city's community FIRM map panel number is 515524 0005B.

For most mortgage transactions involving a structure in the United States, the lender will review the NFIP maps for the community to determine if the property structure is located within a Special Flood Hazard Area. If it is determined that the structure is in the SFHA, the borrower is notified that flood insurance is required as a condition of receiving a loan. A similar review and notification is conducted when a loan is sold on the secondary loan market or when the lender completes a routine review of its mortgage portfolio.

In some cases where a property is located very close to the Special Flood Hazard Area, further survey work and analysis may reveal that the building structure is outside the floodplain limits. If new information shows that a structure is not in the flood hazard area, owners may request a letter of map amendment (LOMA).

For questions regarding the cities FIRM map, residents can contact the City Engineer, 703.246.6330

For information relating directly to the National Flood Insurance Program, refer to the FEMA website.

Official Flood Plain Map

The City of Fairfax Zoning Code refers to the City's Official Flood Plain Map. On February 11th, 2003, the City Council adopted the FEMA Flood Plain Map as the Official City Flood Plain Map. Development issues relating to the zoning code and all Chesapeake Bay Resource Protection and Management areas are determined based on the Official City Flood Plain Map. For more information, see the zoning map.

Chesapeake Bay Information

The Chesapeake Bay ordinance was adopted by the City of Fairfax to protect the city's streams and ultimately the Chesapeake Bay from nonpoint source pollution that is generated from urban development. As land is developed, water can no longer infiltrate into the ground where the soil can filter out pollutants and sediments that degrade water quality. The ordinance which has been approved by the Virginia Department of Conservation and Recreation is written to meet the requirements set forth in the Code of Virginia.

The intent of the Chesapeake Bay ordinance is to establish criteria for approving, denying or modifying requests to rezone, subdivide, use, develop and /or redevelop land in the Chesapeake Bay preservations areas which includes all areas of the city. The Chesapeake Bay preservation area map delineates resource protection areas as 100 foot vegetative buffers adjacent to water bodies with perennial flow. The purpose of the buffers is to filter pollutants before they enter the streams. The intent of the regulations is to ensure the following:

- Protect sensitive environmental lands within the city
- Safeguard the quality of state waters
- Prevent the further increase in pollution of state waters
- Reduce existing pollution of state waters
- Promote water resource conservation in order to provide for the health, safety and welfare of the present and future citizens of the city

The ordinance includes general performance standards for designing projects to ensure the quality of water is not compromised and that projects may have a positive impact on the water quality in the city's streams. The following performance standards are set forth in the ordinance:

- Maximize rainwater infiltration
- Reduce the land application of nutrients and toxics
- Implement best management practices to ensure no net increase in nonpoint source pollution from new development and a ten percent reduction over existing conditions from redevelopment (allowable loadings are based on the city's 45 percent average land cover condition- refer to Section 110-84(b)(7)
- · Minimize erosion and sedimentation potential
- Limit land disturbance
- Preserve indigenous vegetation to the maximum extent practicable, consistent with the use or development proposed.

The ordinance applies to all Chesapeake Bay preservation areas as depicted on the City of Fairfax Chesapeake Bay preservation area map. The city is divided into resource protection and resource management areas. The resource management area includes all property in the city that is not designated as a resource protection area. Based on the proximity of the resource protection areas to the streams, more specific performance criteria apply when the land disturbance is located in a resource protection area. For disturbance in resource protection areas refer to 110-84(c) and (d) of the ordinance.

Plan Submission Requirements

To comply with the ordinance, the following applications shall be submitted to the Planning office:

- Resource Protection Area Site-specific Study (PDF Format)
- Water Quality Impact Assessment (PDF Format)

For small residential lots under one acre, applicants shall submit the Certificate of Environmental Compliance Form (PDF Format).

Chesapeake Bay Ordinance Information

- Ordinance (PDF Format)
- Chesapeake Bay Preservation Area Maps (PDF Format)

General Site Plan Submission Information

• Site Plan Application (PDF Format)

Links to Design Guidelines for BMPs

- www.vwrrc.vt.edu/swc/
- www.dcr.virginia.gov/soil_&_water/stormwat.shtml#pubs

For more information, contact Christina Alexander at 703.273.3067 or e-mail.

Watershed Management Planning

The City of Fairfax completed a Watershed Study in July 2005. To review this document use the link below:

Watershed Management Plan

If you have any questions or require additional information please contact:

Christina Alexander Stormwater Resources Engineer

Phone: 703-273-3067

Email: Christina.Alexander@fairfaxva.gov



Northern Virginia Clean Water Partners

2014 Summary

MORNEY, TOGETHER FOR HEALTHY STULANS, AND GRAPERS

Polluted stormwater runoff is the number one cause of poor water quality in streams and rivers in Northern Virginia. As stormwater runs off city streets, suburban yards and parking lots, it picks up pesticides and fertilizer from lawns, bacteria from pet waste, as well as petroleum and oil from driveways and parking lots. Don't forget about the sediment from construction sites or the litter and cigarette butts from the sidewalls.

To reduce the impacts of stormwater pollution, the Northern Virginia Clean Water Partners aims to change human behaviors in our cities and neighborhoods through a public awareness and education campaign.

The Northern Virginia Clean Water Partners is comprised of a multi-disciplined group of local governments, drinking water and sanitation authorities, and individual businesses working together to address the common issues surrounding pollution prevention, stormwater management, and source water protection. "Only Rain Down the Storm Drain" is the motto of the partnership.

The primary goal of the partnership is to reduce stormwater-related pollution from entering local waterways.

To meet this goal, the Partners work together to:

- Educate the region's residents on simple ways to reduce pollution around their homes:
- Monitor changes in behavior through surveys and other data collection techniques; and
- Pilot new cost-effective opportunities for public outreach and education.

Members include stormwater program managers, Municipal Separate Storm Sewer System (MS4) Permit managers, communication directors, public information officers, water quality compliance specialists, and environmental planners.

Membership is voluntary and each member pays annual dues to fund the program. The partnership provides a cost-effective means to meet mandatory state and federal stormwater requirements. By working together the partners are able to leverage their available funds to develop and place bilingual educational products with common

messages and themes, thereby extending their individual reach.

Regional Stormwater Education Campaign

The Annual Regional Stormwater Education Campaign was initiated in 2003 to assist localities in leveraging funds to achieve common goals regarding stormwater education and outreach and promote consistent messages for high priority water quality issues.

The 2014 campaign satisfied M54 (Municipal Separate Storm Sewer System) Phase I and Phase II permit requirements for stormwater education and documenting changes in behavior.

For more information visit www.onlyrain.org



About the **Partnership**

The Northern Virginia Clean Water Partners is open to any water and sewer district, municipal government agency or school system in and around Northern Virginia.



2014 Northern Virginia Clean **Water Partners**

Fairfax County | Arlington County | Loudoun County | Stafford County | Fairfax Water | Gity of Alexandria | Loudoun Water |
City of Fairfax | Town of Herndon | City of Falls Church | Town of Leesburg | Town of Vienna | Town of Dumfries | Doody Calls | Northern Virginia Regional Commission Virginia Coastal Zone Management Program George Mason University | Northern Virginia Community College | Fairfax County Public Schools | Arlington County Public Schools



2014 Campaign Overview

In 2014, the Northern Virginia Clean Water Partners used television, print, internet advertising and the Only Rain Down the Storm Drain website to distribute messages linked to specific stormwater problems, such as proper pet waste disposal, over fertilization of lawns and gardens and proper disposal of motor oil. In addition to the multi-channel media campaign, educational events hosted throughout the Northern Virginia region also raised awareness and encouraged positive behavior change in residents. The television and internet ads featured the well known national symbol of non-point source pollution; the rubber ducky,



Throughout the campaign year, the Partners made the following efforts to educate the public and promote awareness of stormwater pollution:

🖴 From January 2014, through July 2014, four Public Service Announcements featuring messages on the importance of picking up pet waste and general household stormwater pollution reduction measures aired on twelve popular cable TV channels, including three Spanish speaking channels a total of 3,502 times.













- The campaign also featured banner ads on the Xfinity.com website that promote the same messages as the cable TV ads
- The internet banner ads resulted in over 300 click thrus to the www.onlyrain.org website



Conducted an online poll survey of 500 Northern Virginia residents to determine the effectiveness of the ads, to reveal any changes in behavior, and to aid in directing the future efforts of the campaign.



- Distributed 10,000 pet waste bag dispensers at various community events to promote awareness of proper disposal of pet waste.
- Renovated and updated the Northern Virginia Clean Water Partners website with a new modern theme, current information about stormwater pollution prevention, and links to local websites.>

2014 Accomplishments

3,193,924 Total household television impressions* 527,863 Total internet banner ad impressions* 10,000 Dog waste bag dispensers distributed at community events 3,502 Number of times the ads a red on television from January - July 300 Visits to the www.onlyrain.org website 500 Online Annual Survey Responses 3 New Partners

Impressions are the number of times an ad appeared on a single television or computer





Main cause of water pollution... For the fourth year in a row, the majority of survey respondents stated fertilizers and pesticides as the number one cause of pollution in local streams, the Potomac River and Chesapeake Bay.



Where stormwater goes...

Over go percent of Northern Virginia residents surveyed stated that stormwater goes to the Potomac River, the Chesapeake Bay, or to local streams and rivers.

93%

Stated the actions of individuals are important in protecting water quality in local streams, the Potomac River, and the Chesapeake Bay is important.

70%

Would be more likely to take actions to reduce the amounts of pollutants they personally put into storm drains, after learning that polluted water runoff is the number one cause of local water pollution.

95%

Believe it is important for local governments to spend more money on protecting water quality.

Annual Survey Highlights

To assist in determining the effectiveness of the campaign at increasing awareness and changing behaviors, after each campaign year, the Partners conduct an online annual survey of 500 Northern Virginia residents.

Findings in the 2014, survey include:

- 25 percent of the respondents recalled hearing or seeing advertisements on the internet or on TV about reducing water pollution.
- Of those who recalled the ads, seven percent state they now pick up their pet waste more often, seven percent state that they are more careful with motor oil, and 18 percent state they fertilize fewer times per year.
- The number of respondents choosing runoff from streets and parking lots as the number one source of pollution has remained steady over the past four
- 42 percent of respondents knew they live in the Potomac River watershed, up from 38 percent in 2022.
- Interestingly, 81 percent of people surveyed reported that they always pick up after their pet, as compared with 30 percent in previous surveys.
- When shown the Only Rain Down the Storm Drain logo, over half of the respondents recognized the logo.
- 86 percent of respondents were familiar with rain barrels, and 66 percent stated they already have a rain barrel or are interested in getting one
- 36 percent of respondents were familiar with rain gardens, with 62 percent already having a rain garden or interested in installing one.
- More than half of the respondents (54%) prefer to receive information from online sources. Newspaper (19%) and television (17%) were the next two preferred information sources.

Understanding Behaviors

In addition to capturing responses to questions regarding the effectiveness of the campaign, this year's survey honed in on the current behaviors of Northern Virginia residents as they relate to pet waste management, lawn care, and motor oil disposal. Responses to these questions support the development of future messages and targeted promotion.

The most important reason dog owners are motivated to pick up their pet's waste is because "It's what good neighbors do". The number of respondents choosing "It causes water poliution" as the most important reason to pick up has risen from 13 percent in 2011 to 20 percent in 2016.

A third of the lawn and garden owners fertilize their lawns two or more times per year, an equal number never fertilize their lawns. Among those who fertilize once a year, 23 percent fertilize in the spring and only eight percent fertilize in the fall. This suggests that there is room to educate more residents of Northern Virginia that fertilizing in the fall is better for local waterways than fertilizing in the spring.

About half of the respondents reported using an herbicide to treat weeds in their lawn or parden.

To better understand behavior related to the application of fertilizer, three new questions about fertilizer were added to the 2013 survey. Among those who fertilize their lawn, 69 percent have never had or were not sure if their soil had been tested for fertility or pH and four-in-ten reported using a slow release N fertilizer. When asked where they get information to decide when and how much fertilizer to apply the top three most commonly selected responses were "Follow directions on the bag" (52%), followed by "Lawn service conducts the applications" (31%), and then "Eyeball it based on size of lawn" (7%).

The majority of respondents take their vehicle to a service station to change their oil (85%) or take used oil to a gas station or hazmat facility for recycling (20%). Only two percent of Northern Virginians reported storing used motor oil in their garage, placing it in the trash or dumping it down the storm drain.

Only Rain Down the Drain

www.onlyrain.org

2014 Northern Virginia Clean Water Partners

Fairfax County | Arlington County | Loudoun County | Stafford County | Fairfax Water |
City of Alexandria | Loudoun Water | City of Fairfax |
Town of Herndon | City of Fails Church | Town of Leesburg | Town of Vienna |
Town of Dumfries | Doody Calls | Northern Virginia Regional Commission | George Mason
University | Virginia Coastal Zone Management Program | Northern Virginia Community College |
Fairfax County Public Schools | Arlington County Public Schools



Summary prepared by NVRC on behalf of the Partners

For more information contact: Corey Miles Senior Environmental Planner 703-642-4625 3060 Williams Drive, Suite 520 Fairfax, VA 22031 cmiles@novaregion.org



In 2014, the Northern Virginia Regional Commission continued to support the Northern Virginia Clean Water Partners and their regional stormwater education effort called "Only Rain Down the Drain Campaign". The campaign was initiated in 2003 to enable Northern Virginia jurisdictions to pool outreach funds to achieve common goals regarding stormwater education and outreach and promote consistent messages about stormwater pollution across the Northern Virginia region. The campaign uses the storm drain marker symbol, the blue and green shad, as its logo (Figure 1).



Figure 1. Northern Virginia Clean Water Partners logo symbol

The activities conducted as part of the campaign satisfies part of the member jurisdiction's Municipal Separate Storm Sewer System (MS4) Phase I and Phase II permit requirements for public education and outreach and documenting changes in behavior.

The Clean Water Partners received financial and in-kind contributions from 15 partners in 2014, for a total budget of \$152,000. The Partners met two times and had one conference call between January and September 2014 to plan, implement and review campaign activities. Meeting summaries are provided as Appendix A.

The campaign uses a multi-media approach to educate the public on stormwater pollution. Cable television ads, promotional items, a website (onlyrain.org), print materials, and internet banner ads were used to reach a large audience across the region. On behalf of the partners, NVRC secured the services of Comcast Spotlight to air ads on cable television. Four, 30-second long ad's that feature rubber duckies were selected to illustrate the importance of picking up pet waste, reducing fertilizer application and implementing other general household stormwater pollution reduction measures. The rubber ducky was chosen as a theme for the ads because it has been a long-time symbol of non-point source pollution. One ad was selected for translation into Spanish. In addition to the television ads, campaign banner ads appeared on the Comcast website. For the first time this year, taggable spots were also aired.

Phase II MS4 permit holders are required to conduct outreach and education activities that reach at least 20% of each high priority issue target audience¹. NVRC held several meetings with the Partners to

¹ It shall not be considered noncompliance for failure to reach 20% of the target audience. However, it shall be a

discuss and determine the high priority water quality issues for the region. Regional water quality impairments were the primary criteria used to determine the issues. The three high priority water quality issues identified by the Partners are bacteria, nutrients, and motor oil/chemical contaminants. These issues became the focus of the education and outreach campaign for 2014.

3.1 BACTERIA

Bacteria pollution in stormwater runoff can come from leaking sanitary sewer pipes, livestock agriculture, wildlife (i.e. Canada geese), improper disposal of pet waste, and failed septic systems. Since most of the region is connected to a municipal sanitary sewer, septic systems are not widely used. The region is primarily urban and suburban residential and agriculture is not a major land use. Most sanitary sewer lines undergo regular leak detection and do not contribute a significant load of bacteria to area streams. Due to the large number of pet owners in the region, the Partners chose pet owners as the target audience and the education and outreach messages focused on proper disposal of pet waste.

3.2 NUTRIENTS

Nutrient impairment from stormwater runoff is usually attributed to agriculture or residential fertilizer. MS4 permit holders are required by the Chesapeake Bay TMDL to reduce the nitrogen and phosphorous load contributed to the Bay through stormwater. As the major land use in the region is urban or suburban, the Partners chose to target homeowners with education and outreach messages focused on proper lawn care and disposal of yard waste.

3.3 MOTOR OIL/CHEMICAL CONTAMINANTS

Illicit Discharge or illegal dumping of motor oil, anti-freeze and other chemical contaminants into the stormwater sewer system is also a cause of water impairment in the region. The Partners chose to target home mechanics and contractors with educational messages focused on proper handling of motor oils and hazardous waste.

From January through July advertisements featuring messages on the importance of picking up pet waste and general household stormwater pollution reduction measures aired on twelve popular cable TV channels, including three Spanish speaking channels a total of 3,502 times. The networks were selected based upon demographics of the target audience. Table 1 shows the network where Only Rain Down the Drain advertisements were aired.

Table 1. Cable networks that aired Only Rain Down the Drain ads in 2014

HIST	HGTV
SYFY	ANPL
ESPN	DIY
ENT	OXYG

HLN	TOON
ESPD ·	GALA
CNNE	NGC

The TV ads resulted in approximately 3,193,924 impressions in Northern Virginia households. In addition to cable network advertising, digital banner ads were displayed on Xfinity.com and resulted in 527,863 total impressions and over 300 click thrus to the www.onlyrain.org website.

Table 2. Impressions from banner ads by month in 2014

Month 2014	300 x250 ad size (impressions/ month)	160x 600 ad size (impressions/month)	
February	56,111	31,754	
March	55,975	31,600	
April	55,137	33,089	
May	55,799	31,854	
June	55,573	32,710	
July	55,179	33,082	
Total	333,774	194,089	

The total population of the Northern Virginia region in 2010 was 1,992,044. Since Comcast tracks the number of impressions by broadcast zone not jurisdiction, the target audience reached for each jurisdiction can be derived for the zipcodes in each broadcast zone (Tables 3, 4, and 5).

Table 3. Zipcodes of the Potomac Superzone

ZIP	ZIP	ZIP	ZIP	ZIP	ZIP
20001	20166	20720	20851	22026	22202
20002	20169	20721	20852	22027	22203
20003	20170	20722	20853	22030	22204
20005	20171	20735	20854	22031	22205
20007	20175	20737	20855	22032	22206
20008	20176	20740	20860	22033	22207
20009	20181	20743	20861	22039	22209
20010	20190	20744	20862	22041	22213
20011	20191	20745	20866	22042	22302
20012	20194	20746	20868	22043	22303
20015	20601	20747	20871	22044	22306
20016	20602	20748	20872	22046	22307
20018	20603	20762	20874	22060	22308
20019	20607	20769	20876	22066	22309
20020	20611	20770	20877	22079	22310
20032	20613	20772	20878	22101	22311

20105	20622	20774	20879	22102	22312
20109	20623	20781	20882	22124	22315
20110	20632	20782	20886	22125	22401
20111	20646	20783	20889	22134	22405
20112	20664	20784	20895	22150	22406
20120	20675	20785	20896	22151	22407
20121	20677	20812	20901	22152	22408
20124	20693	20814	20902	22153	22508
20129	20695	20815	20903	22172	22551
20136	20705	20816	20904	22180	22553
20147	20706	20817	20905	22181	22554
20148	20707	20818	20906	22182	22556
20151	20708	20832	20910	22191	22580
20152	20710	20833	20912	22192	22701
20155	20712	20837	22003	22193	
20164	20715	20841	22015	22199	
20165	20716	20850	22025	22201	

Table 4. Zip codes of the Alexandria Broadcast Zone

ZIP	TOWN
22301	Alexandria
22302	Alexandria
22304	Alexandria
22305	Alexandria
22311	Alexandria
22312	Alexandria
22314	Alexandria

Table 5. Zip codes of the Fairfax Broadcast Zone

ZIP	TOWN	ZIP	TOWN
20120	Centreville	22102	Tyson's
20121	Centreville	22124	Oakton

-			
20124	Clifton	22150	Springfield
20151	Chantilly	22151	Springfield
20170	Herndon	22152	Springfield
20171	Herndon	22153	Springfield
20192	Herndon	22180	Vienna
22003	Annandale	22181	Vienna
22015	Burke	22182	Vienna
22027	Dunn Loring	22306	Alexandria
22030	Fairfax	22307	Alexandria
22031	Fairfax	22308	Alexandria
22032	Fairfax	22309	Alexandria
22033	Fairfax	22310	Alexandria
22039	Fairfax Station	22312	Alexandria
22041	Bailey's Cross	22315	Alexandria
22042	Falls Church		
22043	Falls Church		
22044	Seven Corners		
22046	Falls Church		
22079	Lorton		
22101	McLean		

The number of impressions by network in each broadcast zone is given in Table 6.

Table 6. Number of impressions by network in each broadcast zone

realise of impressions by network in each broad				
Networks by Broadcast	Number of			
Zone	Impressions from			
	2/24/14- 8/17/14			
Potomac Total	2,871,055			
HLN -TV	173,544			
OXYG-TV	310,261			
TOON-TV	1,061,087			
ENT -TV	479,889			
= APL-TV	340,469			

Detetional anata (E Nata)	EOE 90E	
Rotational spots (5 Nets)	505,805	
Fairfax County Total	292,881	
APL -TV	47,143	
ESPN-TV	56,371	
CNN -TV	77,371	
HIST-TV	64,132	
NGC -TV	31,764	
Rotational spots (5 Nets)	16,100	
Alexandria, VA Total	29,988	
APL -TV	10,786	
ESPN-TV	6,705	
HGTV-TV	12,497	
Total Household	3,193,924	
Impressions All Zones		

A survey of 500 Northern Virginia residents is conducted annually to identify the demographics of the target audience for each high priority issue, determine the effectiveness of the ads, reveal any changes in behavior, and aid in directing the future efforts of the campaign. The 2014 survey results are included as Appendix C.

5.1 PRIORITY ISSUE: BACTERIA

TARGET AUDIENCE: PET OWNERS

In the 2013 survey, 28 percent (142 individuals) of 500 respondents reported that they owned a dog. Of those that owned a dog, 17 percent (24 individuals) reported that they do not always pick up after their dog while on walks or in the yard. Therefore the target audience is at least 17 percent of the total population or 338,647. Phase II MS4 permit holders are required to reach at least 20 percent of the target audience (67,729 individuals) with education and outreach. The educational message was that "Pet waste left on the ground washes into stormdrains and streams every time it rains. This runoff carries bacteria and other organisms from your pet's waste into local streams. Dispose of your pet's waste properly by bagging it and throwing it away." The take home message in the advertisement was simple and reinforcing; "Scoop it, bag it, trash it" (Figure 2).



Figure 2. Messaging to dog owners regarding proper disposal of pet waste

In addition to the advertisement shown on TV, the Partners distributed 10,000 pet waste bag dispensers to dog owners at community events to promote proper handling and disposal of dog waste (Figure 3).



Figure 3. Pet waste bag dispensers handed out by Partners at community events

According to data provided by Comcast, certain networks such as Animal Planet are more likely to be watched by dog owners. To determine how many of the total impressions reached the target audience (pet owners), the number of impressions in each broadcast zone for networks that have lifestyle characteristics that include owning a dog was tabulated (Table 7).

Table 7. Networks with viewers that are more likely to own a dog.

Cable Network	Number of Impressions in each zone			Total
	Potomac			
APL -TV	340,469	10,786	47,143	398,398
ENT -TV	479,889	N.A.*	N.A.	479,889

HGTV-TV	N.A.	N.A.	12,497	12,497
HIST-TV	N.A.	N.A.	64,132	64,132
HLN -TV	173,544	N.A.	N.A.	173,544
TOON-TV	1,061,087	N.A.	N.A.	1,061,087
TOTAL				2,189,547

^{*}Data not available at time of this report

As shown in Table 8, in order to reach the 20% target audience, 67,729 individuals throughout the region need to be reached with education and outreach. Accounting for the 10,000 pet waste dispensers that were distributed plus the cable television impressions totaling more than 2 million impressions, the goal of reaching 20 percent of the target audience was exceeded.

Table 8. Percent of Target Audience Reached

	Target Audience: Pet Owners					
Total	Target	20% of	Percent of			
Population	Audience	Target	Target			
(2010	(17% of Audience Audience					
Census)	population) Reached					
1,992,044	338,647	67,729	100%			

5.2 PRIORITY ISSUE: NUTRIENTS

TARGET AUDIENCE: HOMEOWNERS WHO APPLY FERTILIZER

According to the data from our 2013 annual survey, more than a third of lawn and garden owners fertilize their lawns two or more times per year. The recommended application for most types of lawns in Northern Virginia is once per year in late summer or fall depending upon the results of a soil test. The educational messages were "Fertilize in the Fall if at all", "Mulch clippings for a healthy lawn and community", and "Sweep all clippings and fertilizer off of the pavement". The television and internet ads featured the well-known national symbol of non-point source pollution; the rubber ducky (Figures 4 and 5).



Figure 4. Screenshot of television ad



Figure 5. Screenshot of television ad

The survey results suggest that the highest percentage of homeowners who apply fertilizers to their lawn or garden more than the recommended rate are males and females between the ages of 35 and 65 (Table 9).

Table 9. 2013 Survey Responses to Residential Fertilizer Behavior

Table 9. 2013 Survey Responses to Resid	entiai rei tilizei b	Ellaviol
	Number of	
(0	Respondents	Percentage
Total with lawn or garden	413	82.6 %
Of those w/ lawn, female primary caretaker	105	25.4 %
Of those w/ lawn, male primary caretaker	143	34.6 %
Total males and females who fertilize other than never or once in fall	142	34.4 %
Females who fertilize other than never or once	142	34.4 70
in fall	55	52.4 %
Males who fertilize other than never or once		
in fall	87	60.8 %
18-34 year old Females who are primary caretakers and fertilize other than once in fall (includes lawn service)	9	16.4%
35 - 65+ year old Females who are primary caretakers and fertilize other than once in fall (includes lawn service)	27	49.1 %
18-34 year old males who are primary caretakers and fertilize other than once in fall		
(includes lawn service)	6	10.9 %
35 - 65+ year old males who are primary caretakers and fertilize other than once in fall		
(includes lawn service)	40	46 %

According to data provided by Comcast, certain networks such as HLN are more likely to be watched by people who perform their own lawn care. To determine how many of the total impressions reached the target audience the number of impressions network in each broadcast zone for networks that have lifestyle characteristics that include performing their own lawn care was tabulated (Table 10).

Cable Network	Number of Impressions in each zone			Total Northern Virginia Impressions
···	Potomac	Alexandria	Fairfax	
CNN -TV	N.A.	N.A.	77,371	77,371
ESPN-TV	N.A.	6,705	56,371	63,076
HGTV-TV	N.A.	12,497	N.A.	12,497
HIST-TV	N.A.	N.A.	64,132	64,132
HLN -TV	173,544	N.A.	N.A.	173,544
NGC -TV	N.A.	N.A.	31,764	31,764
TOTAL				422,384

^{*}Data not available at time of this report

As shown in Table 11, in order to reach the 20% target audience, 191,867 individuals throughout the region needed to be reached with education and outreach. The cable television impressions totaled 422,384 and the goal of reaching 20 percent of the target audience was exceeded.

Table 11. Percent of Target Audience Reached

Table 11: Tereent or Target Hadrence mederica						
	Target Au	Target Audience: Homeowners who				
	perform the	eir own lawn ca	re age 35-75			
Total	Total	20% of	Percent of			
Population	Population	Target	Target			
(2010	of Target Audience Audience					
Census)	Audience Reached					
1,992,044	959,337	191,867	100%			

5.1 PRIORITY ISSUE: CHEMICAL CONTAMINANTS

TARGET AUDIENCE: CONTRACTORS AND HOME MECHANICS

According to the data from our 2013 annual survey, less than 1% of car and truck owners change their own oil and reported they dump the used oil down the storm drain or put it in the trash. Four out of the six respondents who reported this behavior were male. Due to the low number of respondents who reported this behavior (6), singling out a specific subset of a demographic as the target audience is not possible from this dataset because the margin of error is high. However, Comcast was able to derive a target audience using the Scarborough Research syndicated data set for the Washington DC DMA (March 2013-February 2014 survey period). The target audience is respondents who reported performing their own auto repairs such as oil filter/oil change or coolant/anti-freeze change in the past 12 months. The Scarborough Research data set indicated that the total population of the target audience across the region is 189,232 individuals.

According to Comcast data, the viewers of the networks listed in Table 12 have lifestyle characteristics that include performing their own auto repair.

Table 12. Networks with viewers that are more likely to perform their own auto repair

Cable Network	Number of	Total Impressions			
	Potomac	Potomac Alexandria Fairfax			
APL -TV	340,469	10,786	47,143	77,371	
CNN -TV	N.A.	6,705	77,371	63,076	
HGTV-TV	N.A.	12,497	N.A.	12,497	
HIST-TV	N.A.	N.A.	64,132	64,132	
NGC -TV		N.A. 31,764			
TOTAL		390,620			

^{*}Data not available at time of this report

As shown in Table 13, in order to reach the 20% target audience, 37,846 individuals throughout the region needed to be reached with education and outreach. The cable television impressions totaled 390,620 and the goal of reaching 20 percent of the target audience was exceeded with the television ads.

Table 13. Percent of Target Audience Reached

Table 13. Fercent of Target Addience Reactied						
	Target Audien	Target Audience: perform Auto Repairs				
	such as Anti-F	reeze/Coolant	or Oil Filter/Oil			
	Change in pas	t 12 months				
Total	Total 20% of Percent of					
Population	Population Target Target					
(2010	of Target Audience Audience					
Census)	Audience Reached					
1,992,044	189,232	37,846	100%			

The annual surveys are used to understand current behaviors of Northern Virginia residents as they relate to pet waste management, lawn care, and motor oil disposal. The surveys also determining the effectiveness of the campaign at increasing awareness and changing behaviors related to stormwater pollution from year to year.

The 2014 survey of 500 Northern Virginia residents was conducted online by Amplitude Research. The results are attached as Appendix B. This year, 8 percent of the respondents were Spanish Speakers. Results from 2014 indicated that 20 percent of the respondents recalled hearing or seeing

advertisements on the internet or on TV about reducing water pollution. Of those who recalled the ads, three percent state they now pick up their pet waste more often, four percent state that they are more careful with motor oil, and 13 percent state they fertilize fewer times per year.

To assist in determining the effectiveness of the campaign at increasing awareness and changing behaviors, after each campaign year, the Partners conduct an online annual survey of 500 Northern Virginia residents.

OTHER FINDINGS FROM THE 2014 SURVEY INCLUDE:

- 15 percent of the respondents recalled hearing or seeing advertisements on the internet or on TV about reducing water pollution.
- Of those who recalled the ads, seven percent state they now pick up their pet waste more often, seven percent state that they are more careful with motor oil, and 18 percent state they fertilize fewer times per year.
- The number of respondents choosing runoff from streets and parking lots as the number one source of pollution has remained steady over the past four years.
- 42 percent of respondents knew they lived in the Potomac River watershed, up from 38 percent in 2011.
- Interestingly, 81 percent of people surveyed reported that they always pick up after their pet, as compared with 30 percent in previous surveys.
- When shown the Only Rain Down the Storm Drain logo, over half of the respondents recognized the logo.
- 86 percent of respondents were familiar with rain barrels, and 66 percent stated they already have a rain barrel or are interested in getting one
- 36 percent of respondents were familiar with rain gardens, with 62 percent already having a rain garden or interested in installing one.
- More than half of the respondents (54%) prefer to receive information from online sources. Newspaper (19%) and television (17%) were the next two preferred information sources.

In addition to capturing responses to questions regarding the effectiveness of the campaign, this year's survey honed in on the current behaviors of Northern Virginia residents as they relate to pet waste management, lawn care, and motor oil disposal. Responses to these questions support the development of future messages and targeted promotion.

The most important reason dog owners are motivated to pick up their pet's waste is because "It's what good neighbors do". The number of respondents choosing "It causes water pollution" as the most important reason to pick up has risen from 13 percent in 2011 to 20 percent in 2014.

A third of the lawn and garden owners fertilize their lawns two or more times per year; an equal number never fertilize their lawns. Among those who fertilize once a year, 13 percent fertilize in the spring and only eight percent fertilize in the fall. This suggests that there is room to educate more residents of Northern Virginia that fertilizing in the fall is better for local waterways than fertilizing in the spring.

About half of the respondents reported using an herbicide to treat weeds in their lawn or garden. To better understand behavior related to the application of fertilizer, three new questions about fertilizer were added to the 2013 survey. Among those who fertilize their lawn, 69 percent have never had or were not sure if their soil had been tested for fertility or pH and four-in-ten reported using a slow release N fertilizer. When asked where they get information to decide when and how much fertilizer to apply the top three most commonly selected responses were "Follow directions on the bag" (52%), followed by "Lawn service conducts the applications" (31%), and then "Eyeball it based on size of lawn"

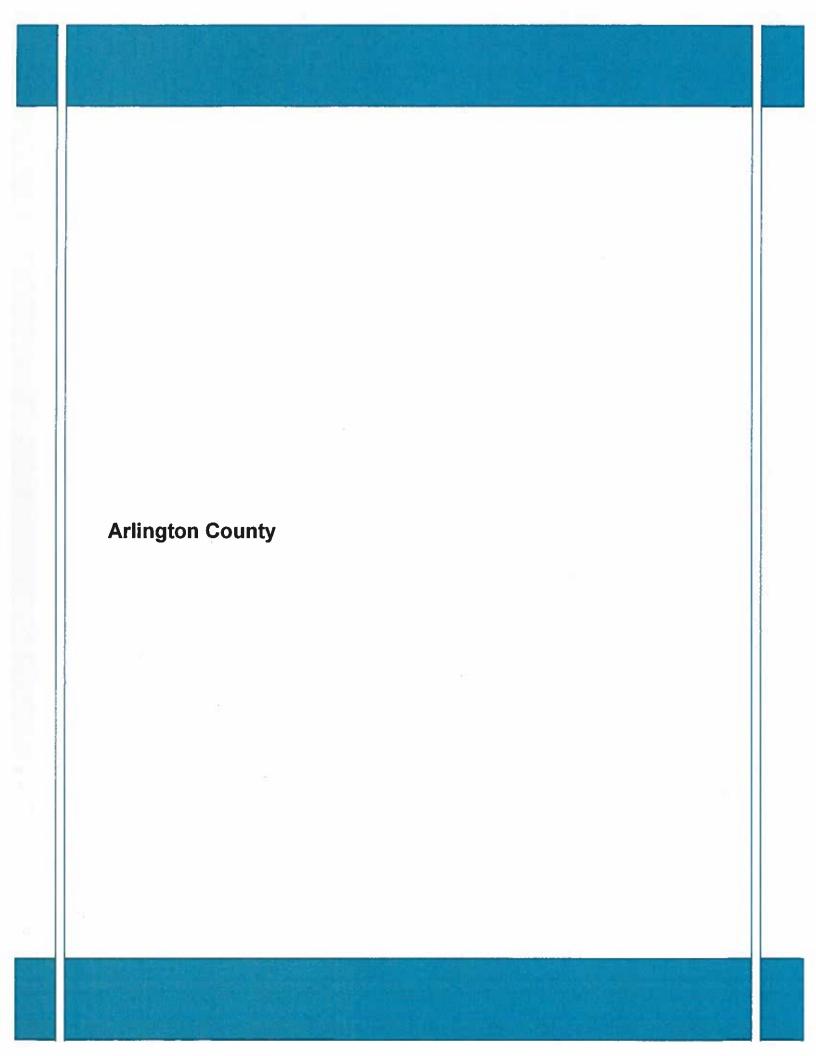
(7%).

The majority of respondents take their vehicle to a service station to change their oil (85%) or take used oil to a gas station or hazmat facility for recycling (10%). Only two percent of Northern Virginians reported storing used motor oil in their garage, placing it in the trash or dumping it down the storm drain.

Responses to the survey suggest that public support remains strong for local government programs that improve the quality of water in local and regional streams and rivers and the Chesapeake Bay.

Appendix A Meeting Summaries

Appendix B
Results of Annual Survey

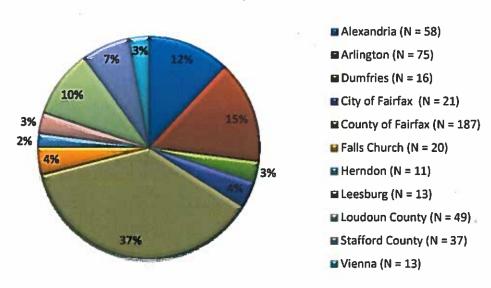


Study Methodology & Respondent Characteristics

The Northern Virginia Regional Commission (NVRC) hired Amplitude Research, Inc. to conduct a survey of residents of northern Virginia to measure beliefs and attitudes related to pollution of the Potomac River and Chesapeake Bay.

Amplitude Research administered the 2014 study online between July 21 and August 1, 2014. In the end, 500 surveys were completed by web panelists who live in one of the areas of Virginia shown in the chart below. (In the legend, "N =" indicates the number of respondents in each city, county, or town.)

Where do you live?



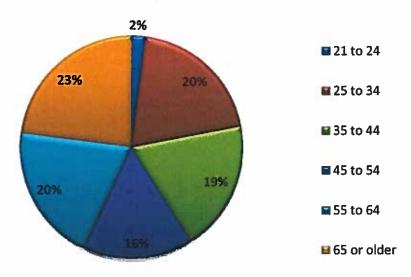
Later in this report, the results for some of the questions are "broken out" by area, in addition to presenting the results for the total sample. However, the specific areas listed above were grouped together into larger areas so that each larger area used for analysis had a reasonable number of respondents.

Residents from Leesburg and Loudoun County were combined into a single category labeled "Leesburg / Loudoun," since the town of Leesburg lies within Loudoun County. Another category used for analysis was "Dumfries / Stafford," since Dumfries lies just north of Stafford County. Although Dumfries is not located within Stafford County, it is closer to Stafford than to the other counties covered in the survey. (There were too few survey respondents living in Dumfries to examine the results for Dumfries separately.) The City of Fairfax, Falls Church, Herndon, and Vienna were combined with Fairfax County to create the category "Fairfax Inclusive," since these cities and towns lie within the Fairfax County area. Although the City of Fairfax and City of Falls Church are distinct areas, their location falls within the larger area circumscribed by Fairfax County.

Alexandria and Arlington each had more than 50 respondents and therefore each of these areas can be examined separately.

The minimum age to participate in the survey was 21. As shown in the chart below, each age group was well represented in the survey. Although a small proportion were age 21 to 24, this category has fewer years than the other categories shown. For analysis purposes later in this report, the categories "21 to 24" and "25 to 34" were combined into the broader category of "21 to 34."

Which category includes your age?



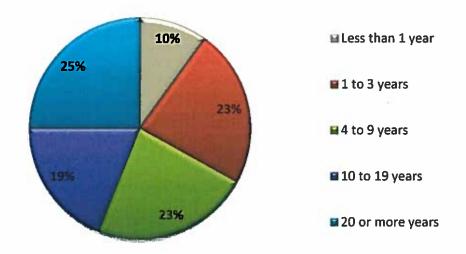
The survey respondents were split between males (46%) and females (54%), while three-fourths (75%) indicated that they own their residence, and 25% reported renting.

The chart on the next page shows how long respondents have lived in their current residence. Some had been living in their current homes for a fairly short period of time (e.g., less than one year -10%, one to three years -23%).

A survey was conducted in 2013, 2012, and 2011 that included many of the same questions, targeted the same geographic area, and had a similar demographic mix as in this 2014 study. Later in this report, comparisons between years are shown where appropriate. In previous years, the title used for the study was "NVRC Resident Survey." Starting in 2013, the study title was changed to "Only Rain NVRC Survey," since a new question was added about awareness of the "Only Rain" logo.

In 2014, a minimum quota of 50 respondents was set for those who are of Hispanic heritage to ensure sufficient representation and to allow analysis of results specifically among Hispanic respondents.

For how many years have you lived in your current residence?



Sampling Variability

While examining the survey findings, it is helpful to keep in mind that the results are based on a sample and are therefore subject to sampling variability, often referred to as "sampling error." The degree of uncertainty for an estimate (e.g., a particular percentage from the survey) arising from sampling variability is represented through the use of a margin of error. A sampling margin of error at the "95% confidence level" can be interpreted as providing a 95% probability that the interval created by the estimate plus and minus the margin of error contains the true value. (The "true" value would be known only if everyone in the target market was surveyed rather than just a sample.) In addition to sampling variability, results may be subject to various sources of non-sampling error (e.g., non-response bias, respondent misinterpretation of question wording, etc.). The degree of non-sampling error is not represented by the sampling margin of error and is usually unknown.

For a "sample size" of 500 survey respondents, the "maximum" margin of sampling error for percentages from the survey is +/- 4.4 percentage points at the 95% confidence level. Here, "maximum" refers to the margin of error being highest for proportions from the survey near 50%, while the margin of error declines as percentages get further from 50%. For example, given the same sample size of 500 respondents, a result from the survey near 10% or 90% would have a margin of sampling error of +/- 2.6 percentage points.

The margin of sampling error increases as the sample size decreases. Thus, when a question is asked of only a subset of the total sample, the associated margin of sampling error is larger than that quoted above. Also, even if a question is asked of all respondents, when examining results for a particular subgroup, the margin of sampling error depends on the number of respondents in that subgroup. For example, the "maximum" margin of sampling error would be +/- 9.8 percentage points at the "95% confidence level" when based on a subgroup of 100 survey respondents. In some parts of this report, results are shown for subgroups that include a fairly small number of respondents, and caution is recommended when thinking about these findings.

This suggests that results for different subgroups can be considered "similar" when the differences are small (i.e., small enough to be within the range of sampling error).

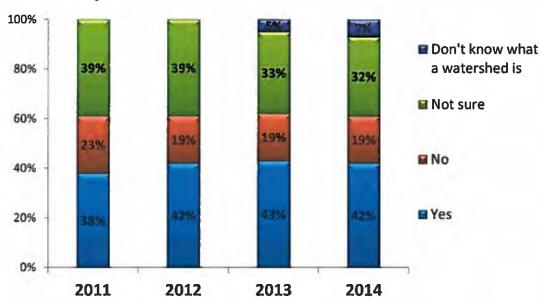
Results from different years can be considered similar when differences between the years are small. If the difference between two years is referred to as "statistically significant" in this report, this essentially means that the difference in the survey results is large enough to be highly confident (i.e., at the "95% confidence level") that there has been a real change. That is, a "statistically significant" difference in the survey results from one year to the next is larger than what would usually be expected from sampling error alone.

In this report, when a result from 2014 is described as "significantly" higher (or lower) than the result from a previous year, this means that the difference between these years is "statistically significant." Also, when one subgroup is described as "significantly more likely" (or "significantly less likely") than another subgroup to answer in a particular way, this is based on a statistically significant difference.

Potomac River Watershed

 Early in the survey, respondents were asked if they lived within the "Potomac River Watershed." As shown in the chart below, slightly more than four-in-ten in 2014 (42%) believed that they did in fact live within the Potomac River Watershed. Similar proportions held this belief in previous years.





- Nearly four-in-ten each year were not sure if they lived within the Potomac River Watershed or did
 not know what a watershed is. (The response option "I do not know what a watershed is" was first
 added in the 2013 survey.)
- When breaking the results out by area, as shown in the table below, a similar proportion in each area believed that they lived in the Potomac River Watershed.

Live Within Potomac River Watershed	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Yes	40%	49%	39%	45%	40%
No	17%	11%	22%	23%	15%
Not sure	34%	33%	32%	27%	39%
Don't know what a watershed is	9%	7%	7%	5%	6%
N = number of respondents	58	75	252	62	53

 As shown in the next table, those who have lived in their residence for 20 or more years were significantly more likely than others to say they live in the Potomac River Watershed.

Live Within Potomac River Watershed	Have Lived in Current Residence < 1 Year	1 to 3 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Yes	25%	40%	35%	43%	56%
No	16%	18%	22%	23%	16%
Not sure	53%	32%	37%	31%	22%
Don't know what a watershed is	6%	10%	6%	3%	6%
N = number of respondents	51	116	113	96	124

• Those in the youngest age group were significantly less likely than those in the oldest age group to believe that they live in the Potomac River Watershed.

Live Within Potomac River Watershed	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Yes	32%	35%	43%	45%	52%
No	20%	25%	19%	15%	18%
Not sure	38%	36%	30%	33%	26%
Don't know what a watershed is	10%	4%	8%	7%	4%
N = number of respondents	106	95	79	102	118

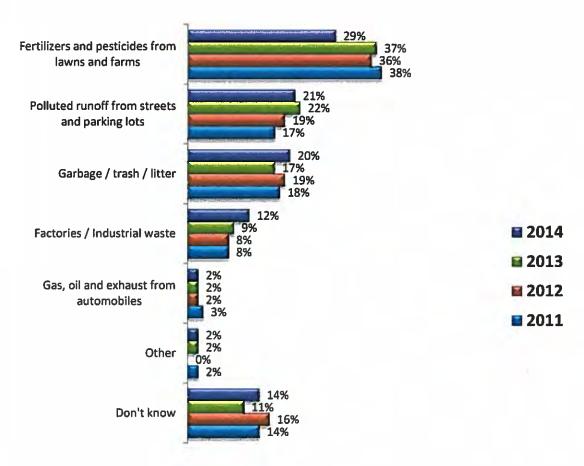
 When examining the results by other subgroups, males were significantly more likely than females, and homeowners were significantly more likely than renters to believe that they live in the Potomac River Watershed. About one-third (34%) of Hispanic respondents held this belief, but this was not significantly different from others.

Live Within Potomac River Watershed	Male	Female	Homeowners	Renters	Hispanic Respondents
Yes	53%	32%	44%	33%	34%
No =	20%	19%	21%	14%	26%
Not sure	23%	40%	30%	40%	36%
Don't know what a watershed is	4%	9%	5%	13%	4%
N = number of respondents	230	270	376	124	50

Beliefs About Local Water Pollution

When asked what they thought was the "Number one" cause of pollution in local streams, the
Potomac River, and the Chesapeake Bay, the most frequently selected response option was
"Fertilizers and pesticides from lawns and farms." However, as shown in the chart below, this
response was selected significantly less often in 2014 (29%) than in previous years.

What do you think is the <u>number one</u> cause of pollution in local streams, the Potomac River, and the Chesapeake Bay?



- The second most often selected cause in 2014 was "Polluted runoff from streets and parking lots," followed closely by "Garbage / trash / litter." The proportions selecting these two response options were similar each year. However, there was a slight increase in 2014 in the proportion selecting "Factories / Industrial waste."
- Tables on the next two pages show the 2014 results broken out by various subgroups of the total sample for the question above. For example, residents of Leesburg / Loudoun, older residents, those who have lived in their homes longer, males, and homeowners were significantly more likely than others to select fertilizers and pesticides from lawns and farms.

Believed #1 Cause of Local Water Pollution	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Fertilizers and pesticides from lawns and farms	17%	25%	29%	45%	28%
Polluted runoff from streets and parking lots	29%	24%	21%	13%	21%
Garbage / trash / litter	31%	15%	19%	19%	19%
Factories / Industrial waste	10%	11%	12%	8%	19%
Gas, oil and exhaust from automobiles	2%	3%	2%	2%	0%
Other	0%	4%	1%	3%	2%
Don't know / not sure	11%	18%	16%	10%	11%
N = number of respondents	58	75	252	62	53

Believed #1 Cause of Local Water Pollution	Have Lived in Current Residence < 1 Year	1 to 3 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Fertilizers and pesticides from lawns and farms	16%	19%	28%	33%	41%
Polluted runoff from streets and parking lots	29%	27%	16%	22%	18%
Garbage / trash / litter	25%	21%	28%	18%	10%
Factories / Industrial waste	6%	15%	10%	11%	14%
Gas, oil and exhaust from automobiles	2%	3%	2%	2%	0%
Other	6%	0%	2%	3%	1%
Don't know / not sure	16%	15%	14%	11%	16%
N = number of respondents	51	116	113	96	124

Believed #1 Cause of Local Water Age 21 to 34 35 to 44 45 to 54 55 to 64 65 + **Pollution** Fertilizers and pesticides 14% 16% 30% 46% 37% from lawns and farms Polluted runoff from 29% 18% 20% 20% 19% streets and parking lots Garbage / trash / litter 25% 31% 22% 11% 12% Factories / Industrial 15% 13% 13% 12% 8% waste Gas, oil and exhaust 4% 1% 0% 2% 1% from automobiles Other 2% 3% 1% 2% 1% Don't know / not sure 11% 18% 14% 7% 22%

95

79

102

118

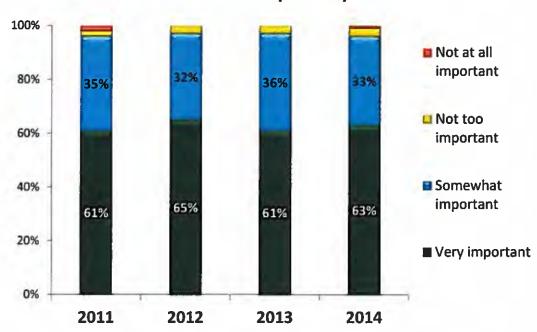
N = number of respondents

106

Believed #1 Cause of Local Water Pollution	Male	Female	Homeowners	Renters	Hispanic Respondents
Fertilizers and pesticides from lawns and farms	33%	25%	34%	13%	20%
Polluted runoff from streets and parking lots	24%	19%	20%	28%	20%
Garbage / trash / litter	13%	26%	17%	29%	32%
Factories / Industrial waste	12%	12%	12%	11%	10%
Gas, oil and exhaust from automobiles	2%	1%	1%	2%	2%
Other	3%	1%	2%	1%	2%
Don't know / not sure	13%	16%	14%	16%	14%
N = number of respondents	230	270	376	124	50

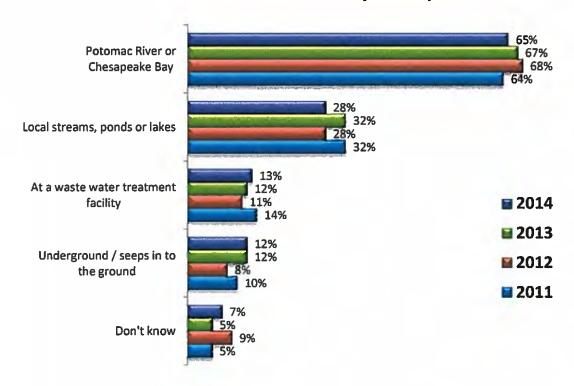
 Most gave a rating of at least "Somewhat important" for the importance of actions of individuals in protecting local water quality. Slightly more than 60% each year gave a rating of "Very important."

How important do you feel the actions of individuals are in protecting water quality in local streams, the Potomac River and the Chesapeake Bay?



- The majority among each of the subgroups examined for previous questions gave a rating of "Very important" for the question above, and most of those who did not rate "Very important" gave a "Somewhat important" rating.
- In another question designed to assess beliefs about local water pollution, as shown on the next page, two-thirds (65%) in 2014 correctly indicated that stormwater ultimately ends up in the Potomac River or Chesapeake Bay. This was similar to results in previous years.
- However, this leaves approximately one-third who did not select the Potomac River or Chesapeake
 Bay. Interestingly, the respondent was allowed to select multiple options for this question. For
 example, those who selected "Local streams, ponds or lakes" could have also selected "Potomac
 River or Chesapeake Bay" if they wanted to. Also, as part of the question, respondents were told
 that stormwater is rain or other water that flows into the street, along the gutter and into the storm
 drain.

To the best of your knowledge, where do you believe stormwater eventually ends up?



 The table below shows the results by area. The proportion selecting "Potomac River or Chesapeake Bay" was lower in Dumfries / Stafford, but this result was not significantly lower than in other areas. However, those in Arlington and Leesburg / Loudoun were significantly more likely than others to select "Local streams, ponds or lakes."

Believed Destination of Stormwater	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Potomac River or Chesapeake Bay	71%	67%	67%	63%	55%
Local streams, ponds or lakes	17%	40%	24%	44%	28%
At a waste water treatment facility	19%	16%	14%	10%	2%
Underground / seeps in to the ground	16%	19%	11%	10%	9%
Don't know	0%	8%	8%	3%	13%
N = number of respondents	58	75	252	62	53

 The majority of those in other subgroups selected "Potomac River or Chesapeake Bay," as shown in the following tables.

Believed Destination of	Have Lived in Current			10 to 19	20 on Mans
Stormwater	Residence < 1 Year	1 to 3 Years 4 to 9 Years		Years	20 or More Years
Potomac River or Chesapeake Bay	69%	56%	60%	72%	73%
Local streams, ponds or lakes	47%	39%	32%	25%	10%
At a waste water treatment facility	20%	15%	12%	13%	11%
Underground / seeps in to the ground	22%	24%	8%	5%	6%
Don't know	6%	9%	7%	2%	9%
N = number of respondents	51	116	113	96	124

Believed Destination of Stormwater	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Potomac River or Chesapeake Bay	60%	54%	62%	74%	75%
Local streams, ponds or lakes	42%	39%	34%	17%	14%
At a waste water treatment facility	24%	11%	15%	10%	8%
Underground / seeps in to the ground	25%	12%	14%	7%	4%
Don't know	8%	13%	3%	3%	8%
N = number of respondents	106	95	79	102	118

- However, younger respondents, those living in their current residence for a shorter period of time, and renters were more likely than others to select "Local streams, ponds, or lakes" as the ultimate destination for stormwater.
- As shown on the next page, females and those of Hispanic heritage were significantly less likely than others to select "Potomac River or Chesapeake Bay."

Believed Destination of

Stormwater	Male	Female
Potomac River or Chesapeake Bay	72%	60%
Local streams, ponds or lakes	27%	30%
At a waste water treatment facility	12%	14%
Underground / seeps in to the ground	9%	15%
Don't know	5%	9%
N = number of respondents	230	270

Homeowners	Renters
68%	59%
26%	36%
11%	19%
8%	24%
6%	10%
376	124

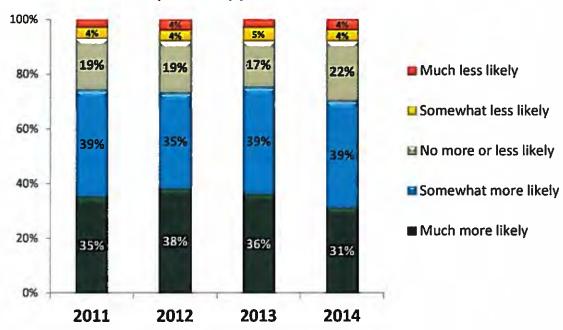
Hispanic Respondents
50%
34%
24%
10%
10%
50

 After being asked the questions covered up to this point in the report, respondents were asked to read the following information and then indicate their future intentions.

Many people are surprised to learn that polluted water runoff is the number one cause of pollution in the Potomac River and Chesapeake Bay. When it rains and when snow melts, the water picks up pollutants on the land and washes them into local waterways. Knowing this, would you be more likely or less likely to take actions to reduce the amount of pollutants that you personally put into storm drains?

- The chart on the next page shows the results for this question. For example, 31% in 2014 indicated
 that they would be "Much more likely" to take actions to reduce the amount of pollutants they
 personally put into storm drains after reading the information above. This result was significantly
 lower than the 38% who gave this response in 2012, but the 2014 result was not significantly
 different compared to 2013 or 2011.
- More than one-third each year gave a rating of "Somewhat more likely." As a result, the majority
 would be at least somewhat more likely to take corrective actions when given this information.
 However, there were still some who would not change (17% to 22%, depending on the year) or
 would be less likely to act.

[AFTER READING STATEMENT] Would you be more or less likely to take actions to reduce the amount of pollutants that you personally put into storm drains?



 When examining the results by area, the proportion "Much more likely" ranged from a low of 27% in Arlington to a high of 36% in Dumfries / Stafford. However, in light of the number of respondents from each area, the difference between 27% and 36% here is not large enough to be statistically significant.

Likelihood Act to Reduce Storm Drain Pollutants	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Much less likely	5%	3%	6%	2%	2%
Somewhat less likely	3%	4%	4%	5%	6%
No more or less likely	16%	22%	21%	22%	26%
Somewhat more likely	48%	44%	37%	42%	30%
Much more likely	28%	27%	32%	29%	36%
N = number of respondents	58	75	252	62	53

Likelihood Act to Reduce Storm Drain Pollutants	Have Lived in Current Residence < 1 Year	1 to 3 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Much less likely	2%	5%	1%	4%	7%
Somewhat less likely	4%	6%	5%	2%	4%
No more or less likely	22%	23%	18%	23%	23%
Somewhat more likely	39%	35%	45%	44%	35%
Much more likely	33%	31%	31%	27%	31%
N = number of respondents	51	116	113	96	124

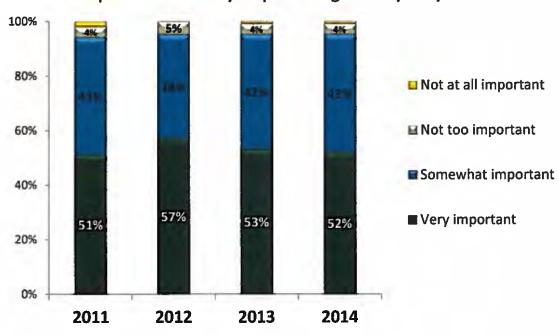
Likelihood Act to Reduce Storm Drain Pollutants	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Much less likely	3%	1%	6%	6%	5%
Somewhat less likely	8%	6%	1%	4%	3%
No more or less likely	24%	21%	19%	18%	25%
Somewhat more likely	39%	44%	41%	31%	41%
Much more likely	26%	28%	33%	41%	26%
N = number of respondents	106	95	79	102	118

Likelihood Act to Reduce Storm Drain Pollutants	Male	Female	Homeowners	Renters	Hispanic Respondents
Much less likely	4%	4%	5%	3%	0%
Somewhat less likely	4%	4%	4%	5%	8%
No more or less likely	27%	18%	22%	21%	26%
Somewhat more likely	39%	39%	39%	39%	28%
Much more likely	26%	35%	30%	32%	38%
N = number of respondents	230	270	376	124	50

 A higher proportion of females than males gave a rating of "Much more likely," and the difference between 35% vs. 26% above is statistically significant.

- A relatively high proportion of Hispanic respondents (38%) gave a rating of "Much more likely."
 However, given the sample size of 50 respondents, the difference between Hispanic respondents and others was not statistically significant.
- Slightly more than half each year felt that it was "Very important" for local governments to spend more money on protecting water quality.

How important do you think it is for local governments to spend more money on protecting water quality?



 Approximately half or more from each area felt it was "Very important" for local governments to spend more money on protecting water quality.

Importance of Local Water Quality Spending	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Not at all important	0%	0%	2%	3%	2%
Not too important	0%	7%	4%	3%	2%
Somewhat important	41%	44%	42%	47%	43%
Very important	59%	49%	52%	47%	53%
N = number of respondents	58	75	252	62	53

 Only small proportions in each subgroup gave a rating of "Not too important" or "Not at all important."

Importance of Local Water Quality Spending	Have Lived in Current Residence < 1 Year	1 to 3 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Not at all important	2%	1%	2%	3%	1%
Not too important	6%	5%	2%	1%	6%
Somewhat important	31%	44%	51%	46%	36%
Very important	61%	50%	45%	50%	57%
N = number of respondents	51	116	113	96	124

Importance of Local Water Quality Spending	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Not at all important	1%	2%	3%	1%	2%
Not too important	9%	1%	1%	2%	4%
Somewhat important	46%	46%	53%	35%	37%
Very important	44%	51%	43%	62%	57%
N = number of respondents	106	95	79	102	118

Importance of Local Water Quality Spending	Male	Female	Homeowners	Renters	Hispanic Respondents
Not at all important	3%	1%	2%	2%	2%
Not too important	5%	3%	3%	5%	4%
Somewhat important	46%	39%	42%	44%	42%
Very important	46%	57%	53%	49%	52%
N = number of respondents	230	270	376	124	50

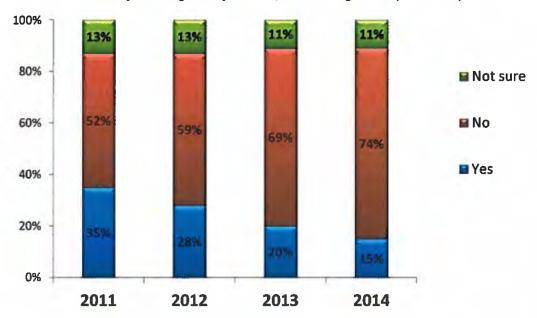
Women were significantly more likely than men to give a rating of "Very important."

Advertising

In 2014, 15% indicated that they have seen ads on TV or the Internet about fertilizing less often and/or reducing water pollution. This was significantly lower than in each previous year. However, the question wording before 2013 was slightly different, including references to radio advertising and pet waste. The full wording in 2012 and 2011 was as follows: "Have you heard any ads on the radio, or have you seen any ads on websites or blogs about picking up pet waste, fertilizing less often, and/or reducing water pollution?"

ADVERTISING AWARENESS

(2014 Question Wording: Have you seen any ads on TV or the Internet about fertilizing less often and/or reducing water pollution?)



 A higher proportion of those in Leesburg / Loudoun (23%) were aware of the advertising in 2014, compared to other areas. But, the differences between this area and other areas were not statistically significant.

Saw TV / Internet Ads on Reducing Water Pollution	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Yes	10%	12%	15%	23%	15%
No	79%	80%	73%	66%	70%
Not sure	11%	8%	12%	11%	15%
N = number of respondents	58	75	252	62	53

 Awareness was significantly higher among those who have lived in their residence for longer and among older residents.

Saw TV / Internet Ads on Reducing Water Pollution	Have Lived in Current Residence < 1 Year	1 to 3 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Yes	6%	13%	11%	18%	21%
No	88%	78%	78%	72%	61%
Not sure	6%	9%	11%	10%	18%
N = number of respondents	51	116	113	96	124

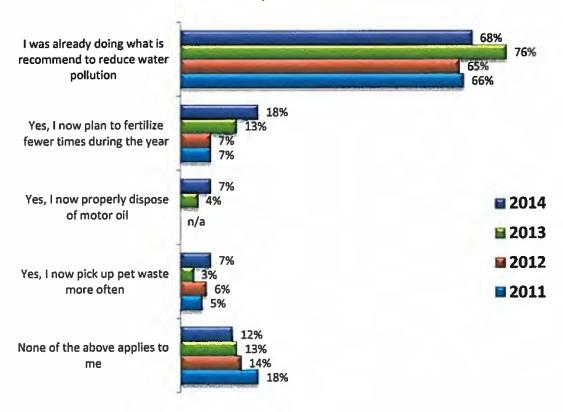
Saw TV / Internet Ads on Reducing Water Pollution	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Yes	7 %	11%	14%	18%	24%
No	89%	80%	73%	69%	59%
Not sure	4%	9%	13%	13%	17%
N = number of respondents	106	95	79	102	118

 Men were significantly more likely than women, and homeowners were more likely than renters, to report seeing the ads. A relatively high proportion of Hispanic respondents reported awareness of the ads, but the difference between Hispanic respondents and others was not statistically significant.

Saw TV / Internet Ads on Reducing Water Pollution	Male	Female	Homeowners	Renters	Hispanic Respondents
Yes	20%	11%	17%	9%	20%
No	71%	76%	71%	82%	76%
Not sure	9%	13%	12%	9%	4%
N = number of respondents	230	270	376	124	50

• The question covered in the chart on the next page was asked only of those who reported awareness of the ads.

Did seeing those ads make you change any of your behaviors related to fertilizing less often and/or reducing water pollution?

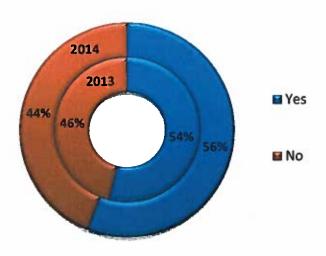


- A noteworthy proportion (18% in 2014) of those aware of the advertising indicated that they now
 plan to fertilize fewer times during the year. The difference between 18% giving this response and
 7% in 2012 and 2011 giving this response was statistically significant, but the difference between
 18% in 2014 vs. 13% in 2013 was not large enough to be statistically significant.
- The wording of the question above was not exactly the same in 2012 and 2011, since the mix of
 advertising was not the same every year, and the wording in the questionnaire was adjusted
 accordingly.

• The logo below was shown to all respondents in 2014 and 2013, regardless of whether they had seen advertising or not, and more than half of the total sample recognized the logo.



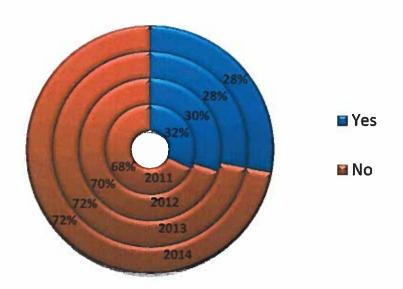
Have you ever seen the logo above anywhere?



Behavior Among Dog Owners

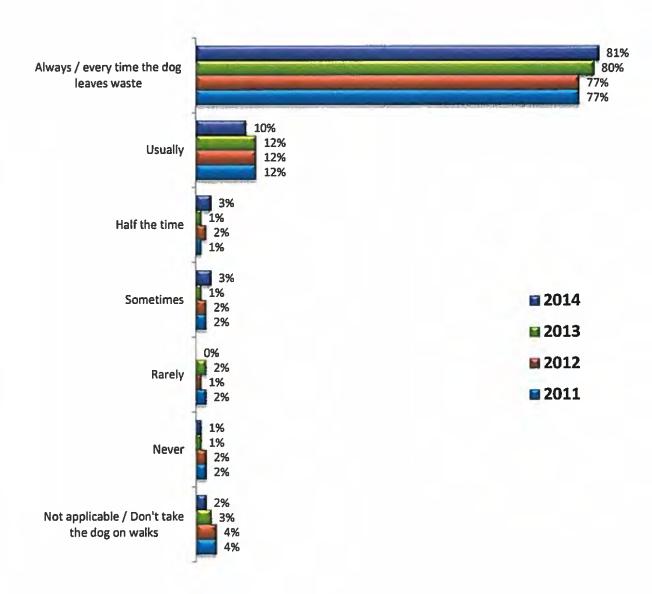
 More than one-fourth in each year indicated that they have a dog (or someone else in their household has a dog). Several questions were asked of these dog owners. (However, since a subset of the total sample reported having a dog, the results for the questions applicable only to dog owners are not broken out by area or demographic subgroups.)

Do you (or does another person in your household) have a dog?



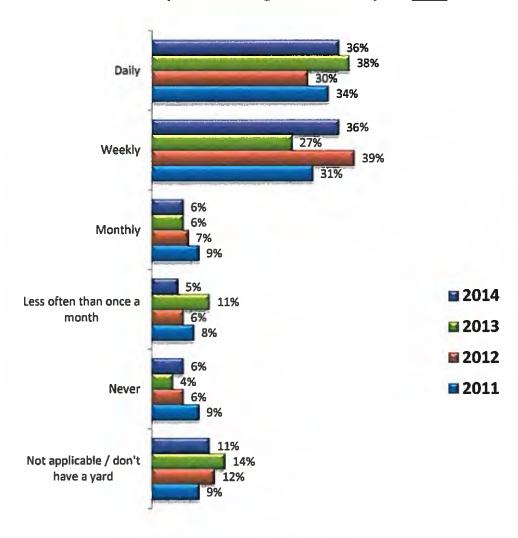
• On the following pages, results are shown for questions about how often dog owners pick up after their dogs and what motivates them to do so.

When taking your dog(s) for a <u>walk</u>, how often do you pick up after your dog(s)?



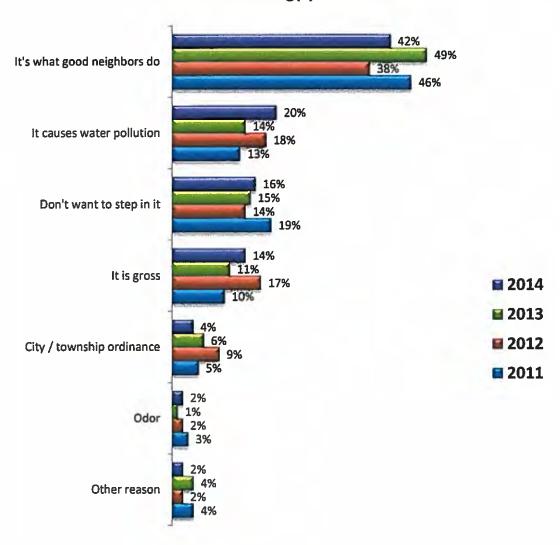
 More than eight-in-ten (81%) in 2014 indicated that they always pick up after their dog(s) when taking the dog(s) for a walk. Many others usually do so.

How often do you (or does someone else from your household) remove dog waste from your <u>yard</u>?



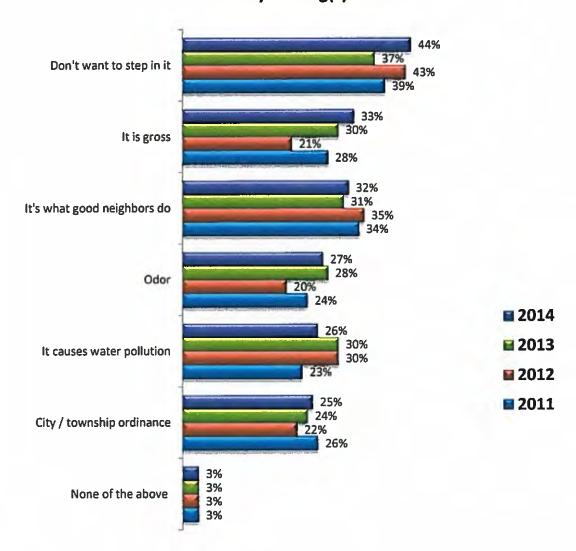
- In their own yard, more than one-third in 2014 reported removing dog waste daily, while more than
 one-third do so weekly.
- There was some fluctuation from year to year in the proportions reporting daily and weekly removal
 of dog waste from their yard, but the 2014 results fell between the highest and lowest results across
 the four years. For example, the 36% doing so daily in 2014 was above the low of 30% in 2012 and
 below the high of 38% in 2013.

What is the <u>most</u> important reason to pick up after your dog(s)?



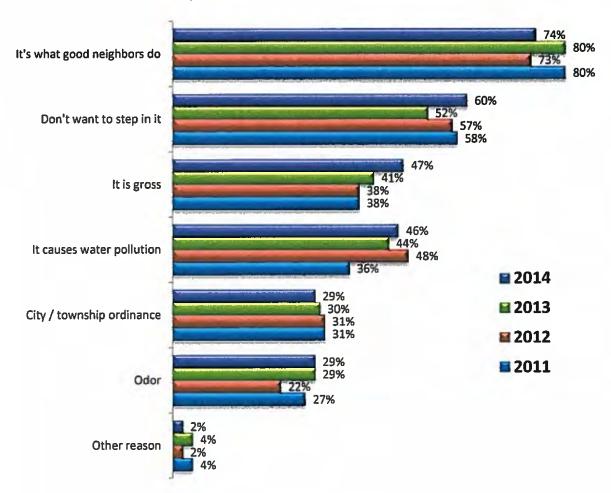
- When asked about the "Most important reason" for picking up after their dog(s), more than four-inten (42%) in 2014 selected "It's what good neighbors do."
- One-in-five (20%) in 2014 selected "It causes water pollution" as the <u>most</u> important reason to pick up after their dog.
- There was some fluctuation from year to year in the results above, but recall that this question was
 asked only of dog owners, and the sample size of dog owners is lower than the total sample size,
 while the margin of error is higher for a lower sample size.

What <u>other</u> reasons (if any) have motivated you to pick up after your dog(s)?



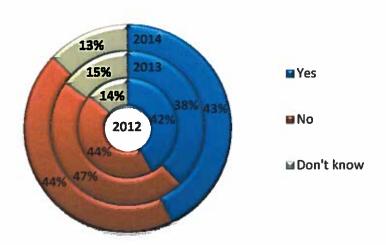
- In addition to the *most* important reason for picking up after their dog(s) as shown on the previous page, respondents were also asked to select any <u>other</u> reasons that motivate them. As shown in the chart above, an additional 26% in 2014 selected "It causes water pollution" as a motivation.
- When combining results in the chart above with the chart on the previous page, a total of 46% in 2014 were motivated to pick up after their dog(s) because "It causes water pollution." (That is, take 20% from the previous page + 26% from the chart above to get 46%.) For easy reference, the chart on the next page has most important and other motivations combined.

Most important + other reasons motivating dog owners to pick up after your dog(s):



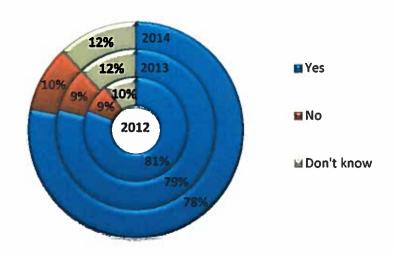
- While it is encouraging to see that more than four-in-ten in 2014 were motivated to pick up after
 their dog by wanting to reduce water pollution, this also means that more than half were not
 thinking about water pollution in this context. This implies that there is room to "educate" more
 northern Virginia residents about how dog waste is an important cause of water pollution, and
 "picking up after your dog" is an important action that helps reduce water pollution.
- The proportion motivated to pick up after their dog by wanting to reduce water pollution was significantly higher in 2012 (48%) than in 2011 (36%), but the results were similar in 2012, 2013, and 2014.
- On the next page, results are shown for two questions about dog waste that were first introduced in 2012. These questions were actually asked of all respondents, since those who do not own a dog, as well as those who do, can answer the following questions.

Does your neighborhood have any dog waste disposal stations (e.g., dispenser with waste bags and a trash can to dispose of dog waste)?



• While approximately four-in-ten reported having pet waste stations in their neighborhood, nearly eight-in-ten in 2014 felt that they are (or would be) useful.

Do you think these types of pet waste stations are (or would be) useful?



While the results in the chart above apply to the total sample, the results were similar when
examining just dog owners. For example, 77% of dog owners in 2014 felt that dog waste stations
are (or would be) useful.

- It is also interesting to note that, among just those who already have dog waste stations in their neighborhood, 92% thought they were useful.
- Among those who do not already have dog waste stations in their neighborhood, 68% felt that they would be useful. Among those who did not know if they had these types of stations, 67% felt that they would be useful, as shown in the cross-tabulation below.

		stations (e.g., disp	Does your neighborhood have any dog waste disposal stations (e.g., dispenser with waste bags and a trash can to dispose of dog waste)?			
		Yes	No	Don't know	Total	
Do you think these types	Yes	91.7%	67.7%	66.7%	78.0%	
of pet waste stations are	No	5.1%	17.3%	3.2%	10.2%	
(or would be) useful?	Don't know	3.2%	15.0%	30.2%	11.8%	
Total		100.0%	100.0%	100.0%	100.0%	

Some readers may be interested in how responses related to dog waste disposal stations vary by
area. For example, as shown below, the proportion reporting dog waste disposal stations in their
area was highest in Leesburg / Loudon (68%) and this result was significantly higher than in Fairfax
Inclusive and Dumfries / Stafford.

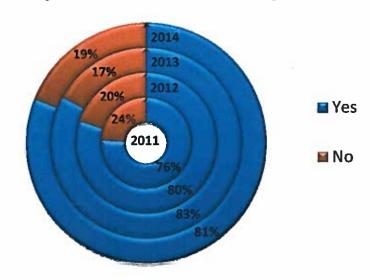
Neighborhood Has Dog Waste Disposal Stations	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Yes	54%	54%	34%	68%	34%
No	29%	27%	54%	24%	60%
Don't know	17%	19%	12%	8%	6%
N = number of respondents	58	75	252	62	53

Dog Waste Disposal Stations Useful	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Yes	90%	77%	75%	84%	72%
No	7%	9%	12%	8%	9%
Don't know	3%	14%	13%	8%	19%
N = number of respondents	58	75	252	62	53

Behavior Related to Lawns & Gardens

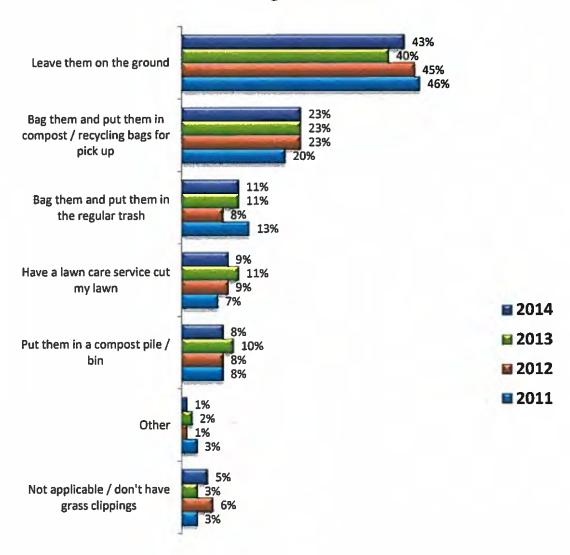
 More than three-fourths of the survey respondents each year indicated that their current home has a lawn or garden.

Does your home have a lawn or garden?



- In a separate question, of the respondents who have a lawn or garden, more than half (58% in 2014, 60% in 2013, 62% in 2012, and 67% in 2011) identified themselves as the primary person taking care of the lawn or garden. Several questions about lawns and gardens were then asked only of these respondents (i.e., primary person in the household who takes care of the lawn or garden).
- The first question about lawns and gardens addressed actions related to grass clippings. As shown
 in the chart on the next page, slightly more than four-in-ten (43%) in 2014 reported that they leave
 grass clippings on the ground.

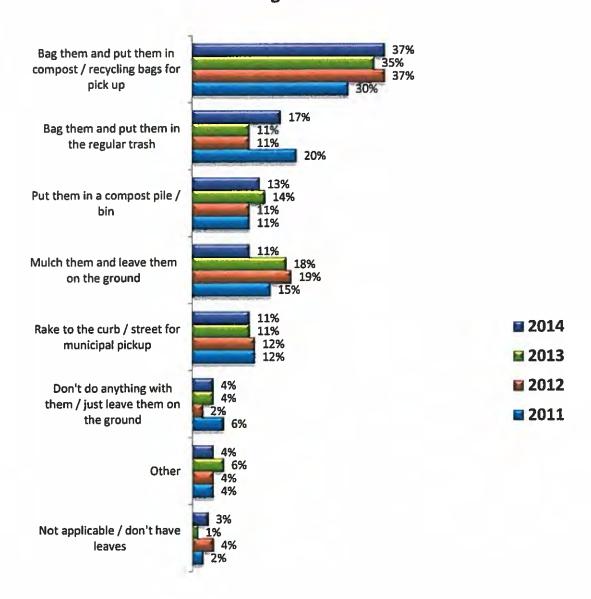
What do you do with grass clippings from your lawn or garden?



• However, some (11% in 2014) reported putting grass clippings in the regular trash, and this suggests that there is room to educate these residents about better ways to handle grass clippings.

• When it comes to leaves that collect on the lawn or garden, more than one-third (37%) in 2014 reported putting them in compost / recycling bags.

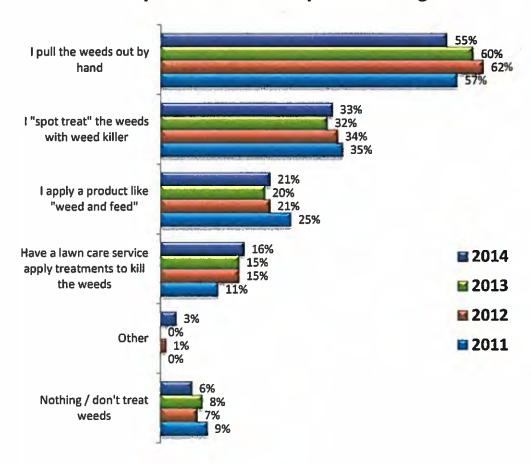
What do you do with <u>leaves</u> that collect on your lawn or garden?



• The proportion putting leaves in the regular trash was significantly higher in 2014 (17%) than in 2013 (11%) and 2012 (11%) but not compared to 2011 (20%).

When dealing with weeds, more than half reported pulling them out by hand.

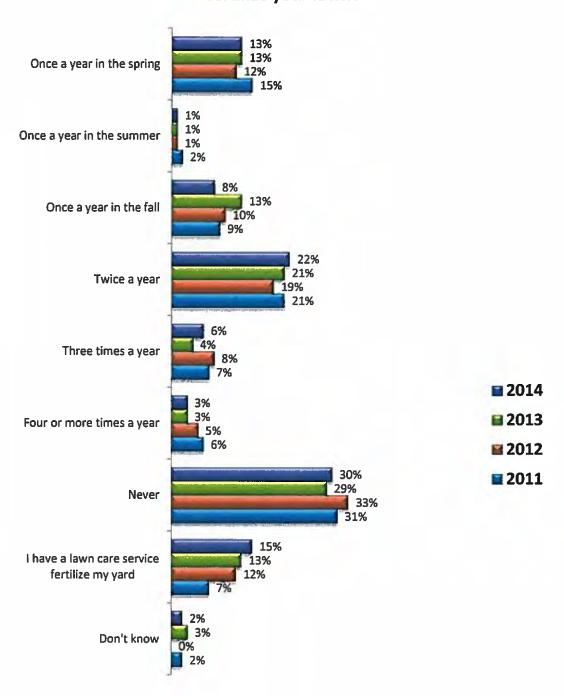
How do you treat weeds in your lawn or garden?



However, it is possible to report more than one way of dealing with weeds. One-third in 2014
reported using "spot treatments," and approximately one-in-five reported that they apply "weed
and feed." Also, some have a lawn service apply weed killer.

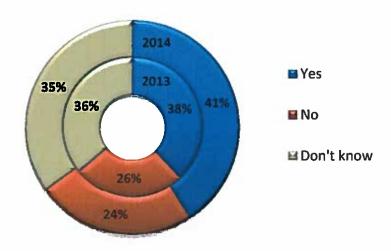
 Nearly one-third (30%) in 2014 reported that they never fertilize their lawn. Among those who do so, fertilizing behavior varied, as shown in the chart below.

Which of the following best describes how often you fertilize your lawn?

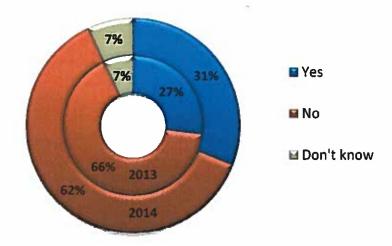


The next two questions were first asked in the 2013 survey and were asked only of those who
fertilize their lawn (or have a lawn service fertilize their lawn) at least once a year. First,
approximately four-in-ten (41% in 2014) use a "slow release N fertilizer," although many didn't
know. Second, more than one-fourth have had their soil tested for fertility or pH.

Do you use a slow release N fertilizer?

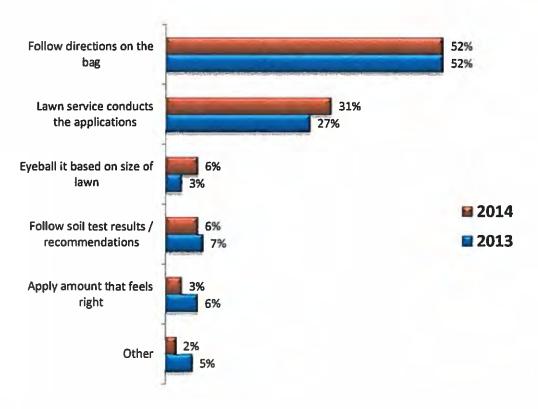


Have you ever had your soil tested for fertility or pH?



In a third question that was introduced in 2013, respondents were asked where they get
information to decide when and how much fertilizer to apply. As shown on the next page, the most
commonly selected response option was "Follow directions on the bag" (52% both years).

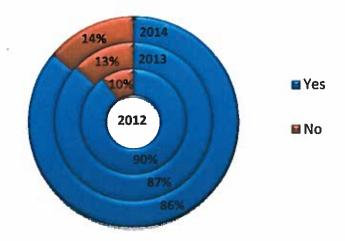
Where do you get information to decide when and how much fertilizer to apply?



Rain Barrels & Rain Gardens

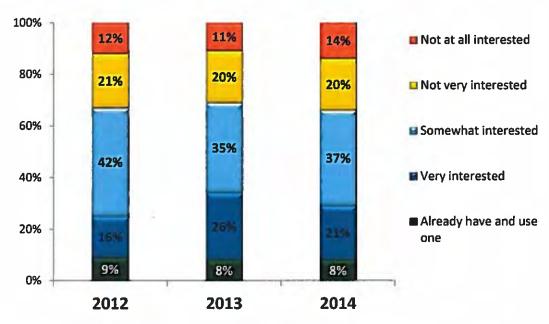
Questions about "rain barrels" and "rain gardens" were first introduced in the 2012 survey. In the
first chart below, 14% in 2014 have heard of a "rain barrel."

Have you ever heard of a "rain barrel" (i.e., a barrel you put under your downspout to collect rain water that you can use around your yard)?



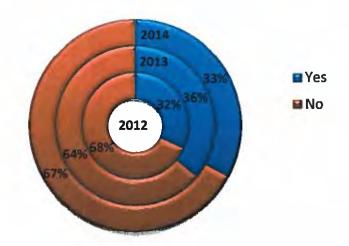
• When asked how interested they would be in installing and using a rain barrel, the proportion "Very interested" in 2014 (21%) fell in between 2013 (26%) and 2012 (16%).

How interested would you be in installing and using a "rain barrel" at your home within the next few years?



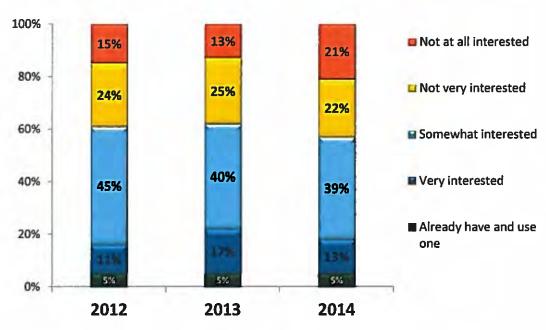
 Among respondents who reported being the primary person in their household who takes care of their lawn or garden, one-third have heard of a "rain garden."

Have ever you heard of a "rain garden" (i.e., a bowl shaped garden area where runoff can collect and soak into the ground)?



Again among respondents who reported being the primary person in their household who takes
care of their lawn or garden, the proportion "Very interested" in a "rain garden" in 2014 (13%) fell in
between the 2013 and 2012 results (17% and 11%, respectively).

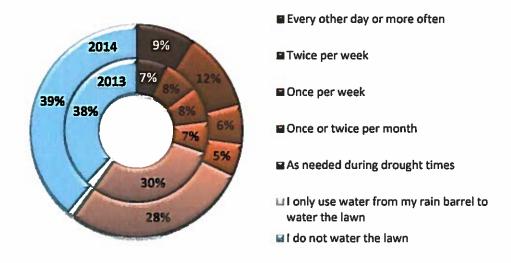
How interested would you be in installing and using a "rain garden" at your home within the next few years?



Lawn Watering

The question below was first introduced in the 2013 survey and was asked only of those who
reported being the primary person in their household who takes care of the lawn or garden.
Interestingly, nearly four-in-ten indicated that they do not water their lawn.

How often do you water your lawn during the summer (May-September) on average?



• On the other hand, some watered their lawn every other day or twice per week on average.

• When asked about changing the oil in their car or truck, more than eight-in-ten each year reported that they use an oil change service, while 10% in 2014 reported taking old motor oil to a gas station or hazmat facility for recycling. A few respondents selected other response options, including five respondents in 2014 who put old motor oil in the trash. Because the number selecting some response options was so small, the results are shown in the tables below, with the frequency (number of respondents selecting each response) and the percentage.

2014: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	Percent
I don't change the oil myself / I take it to a garage / oil change service	426	85.2%
Take the old motor oil to a gas station or hazmat facility for recycling	50	10.0%
Put it in the trash	5	1.0%
Store it in my garage	4	0.8%
Other	1	0.2%
Don't own a car or truck	14	2.8%
Total	500	100.0%

2013: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	Percent
I don't change the oil myself / I take it to a garage / oil change service	427	85.4%
Take the old motor oil to a gas station or hazmat facility for recycling	57	11.4%
Put it in the trash	3	0.6%
Dump it in the gutter or down the storm sewer	2	0.4%
Store it in my garage	1	0.2%
Don't own a car or truck	10	2.0%
Total	500	100.0%

2012: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	Percent
I don't change the oil myself / I take it to a garage / oil change service	426	85.2%
Take the old motor oil to a gas station or hazmat facility for recycling	49	9.8%
Store it in my garage	3	0.6%
Put it in the trash	2	0.4%
Other	2	0.4%
Don't own a car or truck	18	3.6%
Total	500	100.0%

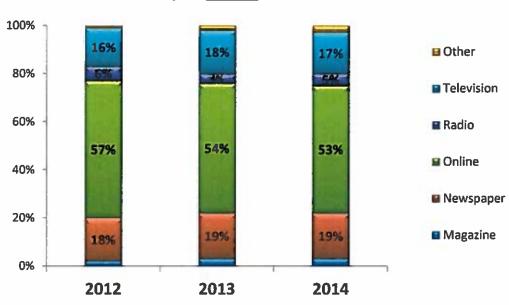
2011: When you need to change the oil in your car or truck, what do you do with the old motor oil?

-		
	Frequency	Percent
I don't change the oil myself / I take it to a garage / oil change service	413	82.6%
Take the old motor oil to a gas station or hazmat facility for recycling	60	12.0%
Put it in the trash	2	0.4%
Other	2	0.4%
Don't own a car or truck	23	4.6%
Total	500	100.0%

Preference for Receiving Information

Based on a question that was first introduced in the 2012 survey, more than half prefer to receive
information online. (To be sure, recall that this was a web survey, and this preference may be more
common among those who complete web surveys than those who don't.)





• In each of the areas included in the survey, more preferred to receive information online than preferred to receive information from other sources, as shown below.

Preference for Receiving Information	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Magazine	7%	1%	3%	2%	0%
Newspaper	21%	19%	20%	16%	17%
Online	51%	59%	51%	56%	53%
Radio	2%	9%	5%	2%	6%
Television	14%	11%	17%	21%	21%
Other	5%	1%	4%	3%	3%
N = number of respondents	58	75	252	62	53

 As might be expected, younger respondents were more likely than older respondents to prefer receiving information online. Also, renters were more likely than homeowners to prefer receiving information online.

Preference for Receiving Information	Have Lived in Current Residence < 1 Year	1 to 3 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Magazine	4%	3%	2%	4%	2%
Newspaper	12%	9%	13%	21%	36%
Online	55%	70%	62%	41%	38%
Radio	4%	3%	6%	4%	6%
Television	18%	14%	13%	26%	15%
Other	7%	1%	4%	4%	3%
N = number of respondents	51	116	113	96	124

Preference for Receiving Information	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Magazine	2%	1%	4%	4%	3%
Newspaper	4%	9%	14%	23%	41%
Online	69%	75%	56%	37%	33%
Radio	5%	2%	6%	10%	3%
Television	15%	11%	18%	23%	17%
Other	5%	2%	2%	3%	3%
N = number of respondents	106	95	79	102	118

Preference for Receiving Information	Male	Female	Homeowners	Renters	Hispanic Respondents
Magazine	3%	3%	3%	2%	6%
Newspaper	20%	18%	24%	5%	12%
Online	56%	50%	48%	69%	52%
Radio	3%	6%	5%	6%	2%
Television	14%	19%	18%	14%	20%
Other	4%	4%	2%	4%	8%
N = number of respondents	230	270	376	124	50

Only Rain NVRC Survey

INTRODUCTION:

Welcome, and thank you for participating in this important research survey.

- S1. Are you:
 - Male
 - Female
- S2. Which of the following categories includes your age?
 - o Under 18 [END SURVEY]
 - o 18 to 20 [END SURVEY]
 - o 21 to 24
 - o 25 to 34
 - o 35 to 44
 - o 45 to 54
 - o 55 to 64
 - o 65 to 74
 - o 75 or older
- S3. Which of the following best describes your residence?
 - o I own my home
 - o I rent my home
 - o Neither [END SURVEY]
- S4. Do you live in the state of Virginia?
 - Yes
 - No [END SURVEY]
- S5. Which of the following best describes where you live (county or city or town)?
 - Alexandria
 - Arlington
 - Dumfries
 - o Fairfax (city of)
 - Fairfax (county of)
 - o Falls Church
 - o Herndon
 - Leesburg
 - Loudoun County
 - Stafford County
 - Vienna
 - None of the above [END SURVEY]
- S6. In 2014, a question was added about ethnicity to set a minimum quota for Hispanic respondents.

Q1. For how many years have you lived in your current residence?
o Less than 1 year
o 1 to 3 years
o 4 to 9 years
o 10 to 19 years
o 20 or more years
Q2. Do you live within the Potomac River Watershed?
o Yes
o No
o Not Sure
o I do not know what a "watershed" is
Q3. What do you think is the number one cause of pollution in local streams, the Potomac River, and the Chesapeake Bay? (Please select only one)
o Factories / Industrial waste
 Fertilizers and pesticides from lawns and farms
Garbage / trash / litter
Gas, oil and exhaust from automobiles
o Pet waste
Polluted runoff from streets and parking lots Pac't know / not ours.
Don't know / not sure Other:
Q4. How important do you feel the actions of individuals are in protecting water quality in local streams, the Potomac River and the Chesapeake Bay? Not at all important Not too important Somewhat important Very important
Q5. "Stormwater" is rain or other water that flows into the street, along the gutter and into the storm drain To the best of your knowledge, where do you believe storm water eventually ends up?
At a waste water treatment facility
□ Local streams, ponds or lakes
□ Potomac River or Chesapeake Bay
 Underground / seeps in to the ground
Don't know
Other:
Page Break
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Q6. Many people are surprised to learn that polluted water runoff is the <u>number one</u> cause of pollution in the Potomac River and Chesapeake Bay. When it rains and when snow melts, the water picks up pollutants on the land and washes them into local waterways. Knowing this, would you be more likely or less likely to take actions to reduce the amount of pollutants that you personally put into storm drains?

- Much less likely
- Somewhat less likely
- No more or less likely
- Somewhat more likely
- Much more likely
- Q7. Do you (or does another person in your household) have a dog?
 - Yes [CONTINUE WITH Q8]
 - No [SKIP TO Q10c]
- Q8. When taking your dog(s) for a walk, how often do you pick up after your dog(s)?
 - Always / every time the dog leaves waste
 - Usually
 - Half the time
 - Sometimes
 - Rarely
 - Never
 - Not applicable / I don't take the dog(s) on walks
- Q9. How often do you (or does someone else from your household) remove dog waste from your yard?
 - Daily
 - Weekly
 - Monthly
 - Less often than once a month
 - Never
 - Not applicable / don't have a yard

[SKIP OVER Q10a/b IF NEVER OR NOT APPLICABLE IN BOTH Q8 AND Q9]

Q10a. What is the most important reason to pick up after your dog(s)? (Please select only one)

- City / township ordinance
- Don't want to step in it
- It causes water pollution
- o It is gross
- o It's what good neighbors do
- o Odor
- Other reason
- None / no reason to [SKIP TO Q10c]

Q10b. What other reasons (if any) have motivated you to pick up after your dog(s)? [PROGRAMMING NOTE: DON'T SHOW WHAT WAS SELECTED IN Q10a]
 City / township ordinance Don't want to step in it It causes water pollution It is gross It's what good neighbors do
 Odor None of the above
Q10c. Does your neighborhood have any dog waste disposal stations (e.g., dispenser with waste bags and a trash can to dispose of dog waste)?
o Yes o No
o Don't know
Q10d. Do you think these types of pet waste stations are (or would be) useful?
o Yes o No
O Don't know
Q11. Does your home have a lawn or garden?
Yes [CONTINUE WITH Q12]No [SKIP TO Q22]
Q12. Are you the primary person who takes care of the lawn or garden?
o Yes [CONTINUE WITH Q13a] o No [SKIP TO Q22]
Q13a. What do you do with grass clippings from your lawn or garden?
Bag them and put them in the regular trash Bag them and put them in compact / regular bags for pick up
 Bag them and put them in compost / recycling bags for pick up Leave them on the ground
 Put them in a compost pile / bin Have a lawn care service cut my lawn

Not applicable / don't have grass clippings

Q13b. Wh	nat do you do with leaves that collect on your lawn or garden?
o Ba o Ra o Mi o Pu o Do	ag them and put them in the regular trash ag them and put them in compost / recycling bags for pick up ake to the curb / street for municipal pickup ulch them and leave them on the ground ut them in a compost pile / bin on't do anything with them / just leave them on the ground ther ot applicable / don't have leaves
Q14. How	do you treat weeds in your lawn or garden? (Select all that apply)
- ": - p - h	apply a product like "weed and feed" that contains weed treatment and fertilizer spot treat" the weeds with weed killer bull the weeds out by hand have a lawn care service apply treatments to kill the weeds ther othing / I don't treat weeds / leave the weeds alone
Q15. Whi	ch of the following best describes how often you fertilize your lawn?
O Or	nce a year in the spring nce a year in the summer nce a year in the fall vice a year nree times a year our or more times a year ever [SKIP TO Q19] nave a lawn care service fertilize my yard on't know
Q16. Do ye	ou use a slow release N fertilizer?
Yes No I don't	know

Q17. Have you ever had your soil tested for fertility or pH?

YesNoI don't know

0	Follow directions on the bag
0	Lawn service conducts the applications
0	Apply amount that feels right
0	Eyeball it based on size of lawn
0	Follow soil test results / recommendations
0	Other:
Q19. H	low often do you water your lawn during the summer (May-September) on average?
0	Every other day or more often
0	
	Once per week
	Once or twice per month
	As needed during drought times
	l only use water from my rain barrel to water the lawn
0	I do not water the lawn
	Have you ever heard of a "rain barrel" (i.e., a barrel you put under your downspout to collect it hat you can use around your yard)?
0	Yes
0	No
Q20b. years?	No How interested would you be in installing and using a "rain barrel" at your home within the ne
Q20b. years?	No How interested would you be in installing and using a "rain barrel" at your home within the new
Q20b. years?	No How interested would you be in installing and using a "rain barrel" at your home within the ne Not at all interested Not very interested
Q20b. years?	No How interested would you be in installing and using a "rain barrel" at your home within the ne Not at all interested Not very interested Somewhat interested
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Q20b. years?	How interested would you be in installing and using a "rain barrel" at your home within the new Not at all interested Not very interested Somewhat interested Very interested I already have and use a "rain barrel" Have you ever you heard of a "rain garden" (i.e., a bowl shaped garden area where runoff called and soak into the ground)? Yes
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Q20b. years?	How interested would you be in installing and using a "rain barrel" at your home within the new Not at all interested Not very interested Somewhat interested Very interested I already have and use a "rain barrel" Have you ever you heard of a "rain garden" (i.e., a bowl shaped garden area where runoff cand soak into the ground)? Yes No How interested would you be in installing and using a "rain garden" at your home within the rears? Not at all interested Not very interested Somewhat interested
Q20b. years?	How interested would you be in installing and using a "rain barrel" at your home within the new Not at all interested Not very interested Somewhat interested Very interested I already have and use a "rain barrel" Have you ever you heard of a "rain garden" (i.e., a bowl shaped garden area where runoff cand soak into the ground)? Yes No How interested would you be in installing and using a "rain garden" at your home within the rars? Not at all interested Not very interested

Q22. When you need to change the oil in your car or truck, what do you do with the old motor oil?
 I don't change the oil myself / I take it to a garage / oil change service Take the old motor oil to a gas station or hazmat facility for recycling Store it in my garage Put it in the trash Dump it in the gutter or down the storm sewer Dump it down the sink I don't own a car or truck Other
Q23. How important do you think it is for local governments to spend more money on protecting water quality?
Not at all important
Not too important
 Somewhat important Very important
o Very important
Q24. Have you seen any ads on TV or the Internet about fertilizing less often, and/or reducing water pollution?
o Yes [CONTINUE WITH Q25]
o No [SKIP TO Q26]
Not sure [SKIP TO Q26]
Q25. Did seeing those ads make you change any of your behaviors related to fertilizing less often and/or reducing water pollution? (Select all that apply)
□ Yes, I now pick up pet waste more often
 Yes, I now plan to fertilize fewer times during the year
 Yes I now properly dispose of motor oil I was already doing what is recommend to reduce water pollution
 None of the above applies to me



Q26.	mave you	seen the	iogo abov	e anywne	ere? (Sno	w Only	Kain	iogo)

- Yes
- No

Q27. How do you prefer to receive information? (Please select only one)

- Magazine
- Newspaper Online
- o Radio
- o Television
- Other: _

Northern Virginia Clean Water Partners Only Rain Down the Storm Drain!

DID YOU KNOW...polluted runoff is the number one cause of water pollution in Northern Virginia? That's right, the very same rain that washes streets, yards, and parking lots clean is sending chemicals, germs, and trash down the drain and into the local creeks where our kids play and fish and animals live! That's the bad news. But here's the good news. If we work together, we can clean it up!

You Can Make A Difference!

Making sure there is enough clean water is everybody's responsibility! Here's how you can do your part to keep local waterways clean and healthy for everyone:

- Love Your Pets and the Environment Pet waste is full of germs that breed in water and cause disease. It's important for the health of the environment and our community to pick up after your pet. Dog Lovers <u>learn more</u>
- Keep Your Garden Green applying too much fertilizer to the yard can be detrimental to our local waterways. Test your soil before fertilizing and wait to use fertilizers or pesticides in the fall. Yard experts test their soil before fertilizing. In this way, you can ensure that spring rains don't wash excess nutrients (and your money) down the drain and into the local creek. Green thumbs learn more
- Maintain your Home and Car Responsibly Just a little bit of oil can pollute a lot of water.
 In fact, just two quarts can contaminate enough creek water to fill four Olympic swimming pools. Other practices like washing your car or mowing your lawn can also have major impact on the environment! To learn more click here.

We're Here to Help!

The Northern Virginia Clean Water Partners have prepared this web page to help you do your part to make sure there is enough clean water for people and for wildlife. We want future generations of Northern Virginia to enjoy spending time together along beautiful lakes and streams.

We Love Our Partners

Fairfax County | Loudoun County | Arlington County | Stafford County | City of Alexandria | Fairfax Water | Loudoun Water | Alexandria Sanitation Authority | City of Falls Church | Town of Herndon | City of Fairfax | Town of Vienna | Town of Leesburg | Town of Dumfries | Doody Calls | Northern Virginia Regional Commission | Virginia Coastal Zone Management Program George Mason University

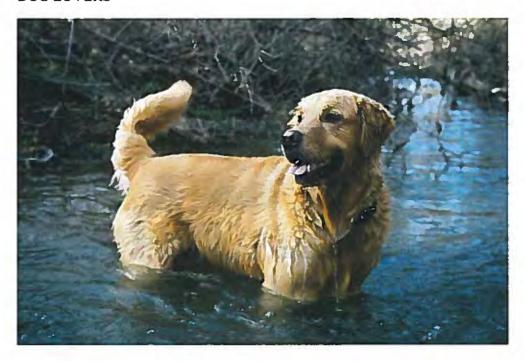
Polluted stormwater runoff is the number one cause of polluted streams and rivers in Northern Virginia, which also are the sources of our drinking water. Working together Northern Virginia, we can make a difference!

The Northern Virginia Clean Water Partners represent 11 Northern Virginia local governments, two independent water and sanitary sewer authorities, and local businesses that care about the quality of our waterways and the region's quality of life.

Our goal is to work together to keep local residents healthy and safe by reducing the amount of pollution that reaches local creeks and rivers. We use educational advertisements, publications, blogs, and this website to alert the citizens we serve about how they can do their part — simple steps they can take to make sure there is enough clean water in local waterways for families to enjoy them and for fish and animals to survive and thrive.

Are you interested in learning more about the Partnership, or how to become a partner? Write us at info@novaregion.org.

DOG LOVERS



Here in Northern Virginia, we love our dogs and clean water, too. We can have both if dog owners are responsible and clean up after their pets.

Did you know that pet waste can harbor harmful germs and bacteria such as E. coli, Salmonella and Fecal Coliform? Pet waste also contains nutrients that deplete the oxygen that fish and other aquatic life need to live. Pet waste left on the ground allows these germs and bacteria to be washed into streams, creeks and water supplies by rain and snow melt.

Simple Ways to Love Your Pet and the Environment!



- Always clean up after your pet. Dog droppings in parks, on the street and even in your garden can all end up polluting our streams. It may not be the most pleasant chore, but cleaning up after your dog can prevent water pollution and it's the law.
- **Dispose of pet waste properly.** Bag it and place pet waste in the trash; Flush pest waste down the toilet.
- Never dispose of pet waste in a storm drain. These drains lead directly to local waterways.
- Encourage other pet owners to be responsible. Picking up after your dog is part of the commitment of owning a pet.

Dog Parks and Groups

Alexandria

- City of Alexandria Dog Parks
- Animal Welfare League of Alexandria
- Things You Can Do to Reduce Pet Waste Pollution
- Managing Pet Waste Bulletin

Arlington

- Arlington County Dog Parks
- Ft. Barnard Dog Park
- Arlington County Parks
- Arlington Dogs Organization
- Banneker Dogs
- Animal Welfare League of Arlington

Fairfax County

- Fairfax County Dog Parks
- Animal Services Division : Adopt and Foster
- Volunteer at Fairfax County Animal Shelter



- <u>City of Falls Church Parks</u> Leesburg
- Leesburg Parks and Recreation

Loudoun

- Loudoun County Parks
- Loudoun County Animal Shelter

Stafford

• Stafford County Pet Waste Brochure



Dog Regulations and Laws

Alexandria

- Dog Park Regulations
- <u>City of Alexandria Rules to Remember When Romping</u> with Rover
- Dog and Cat License Application

Arlington

- Arlington County Canine Rules and Regulations
- Pet License Information

Fairfax County

- Pet License Information
- Animal Control Services

Falls Church

- Pet Regulations
- Falls Church Dog License

Leesburg

Town of Leesburg Pet License Code

Loudon

Pet Licenses and Vaccinations

Stafford

Dog Permit and License Code

GREEN THUMBS

Here in Northern Virginia, we love green lawns and clean water. We can have both if homeowners fertilize their yards responsibly by reading directions on the bag and applying fertilizer in the fall.

But we better act fast — before it's too late to save the crabs, oysters, and fish that are disappearing from polluted waters!

Did you know that fertilizers contain nutrients like nitrogen and phosphorus, which have a negative impact on the health and water quality of the Chesapeake Bay? Plants can only utilize a certain amount of fertilizer, and the excess fertilizer washes away with the rain into neighborhood streams.

Pesticides and herbicides used on lawns can wash off in the same manner. These chemicals indiscriminately kill beneficial plants in our streams, the Potomac River and the Chesapeake Bay. They also kill small insects that live in streams and provide food for fish in the food web.

Green Thumb Tips

- Before applying fertilizer, test your soil. You may not fertilize! Contact your local extension office for a soil
- Fall is the best time to fertilize. Always read the instructions on the bag.



need to test kit.

- Avoid using chemicals in your yard. Keep it healthy for you, your family and your pets!
- Try composting! Composting is a great way to recycle trimmings from your yard, and you can use the mulch to enrich your soil and feed your plants.
- Use native plants. Native plants are adapted to the local climate and thrive in our local conditions without fertilizers and chemicals. They help feed local wildlife too!
- Recycle your rainwater! Direct your downspouts to your garden beds, to take advantage of the runoff from your house. Collect some of the water in a rain barrel or cistern. Plant a rain garden to help manage the runoff!

Guidelines to Know



Alexandria

- City of Alexandria Landscape Guidelines
- Proper Disposal of Lawn Care Products

Arlington

Chesapeake Bay Preservation Ordinance

Falls Church

- Chesapeake Bay Development Guidelines
- Finding a Tree Contractor

Places to Know

Alexandria

- Eco-City Alexandria Initiatives
- Jerome "Buddie" Ford Nature Center
- Virginia Native Plant Society
- Alexandria Farmer's Markets
- Rain Barrel Workshops

Arlington

- Arlington County Demonstration Gardens
- Farmers' Markets
- Native Plant Nurseries
- Parkfairfax Native Plant Sales
- Long Branch Nature Center native plant sale



Falls Church

- City of Falls Church Parks
- City of Falls Church Farmers' Markets
- City of Falls Church Green Events and Programs

Leesburg

- Farmer's Market
- Leesburg Area Parks

Loudoun

- Loudoun County Farmers' Markets
- Banshee Reeks Nature Preserve volunteer opportunities

To learn more about Green Thumbs Practices visit our Green Thumbs page

HOME MAINTENANCE

The Northern Virginia Clean Water Partners wants to remind you and your family to maintain your home and vehicle in a responsible, environmentally friendly way. Byproducts of home maintenance - if disposed of improperly – can cause damage to the environment and to our community. These byproducts are generally referred to as illicit discharge.



Remember to always dispose of used motor oil properly.

Illicit Discharge can be defined as any discharge to the municipal separate storm sewer system that is not composed entirely of storm water. This includes but is not limited to wastewater from

Pesticides and Fertilizers

- Fertilize in the fall!
- Avoid applying pesticides and fertilizers when rain is predicted
- Use non-toxic alternatives when possible

Working with Contractors

- Talk to your contractor about their plans for preventing pollution while they work
- If you are doing a landscaping project that will disturb soil, cover the area with hay or mulch when work is finished for the day, or before rain



Talk to contractors working on your property about preventing pollution from sediment or other materials washing off the site

- Make sure your contractor does not leave any work materials, such as concrete, paint, or dirt, where they can wash down the storm drain
- Ask your contractor how they plan to wash their equipment when they are finished working. Provide access to a utility sink if needed or ask them to wash their equipment in a grassy area (not on the driveway or down the storm drain)

Washing Your Car

- · Wash you car in the grass to prevent soapy water from running directly into the storm drain
- Use a car wash that recycles the water

Changing Your Oil

- Check your car for oil leaks on a regular basis. Just place a piece of cardboard under the car and check it after a few hours.
- If you find a leak, take your car to a shop to prevent oil from running into the storm drain
- Dispose of used motor oil at your local household hazardous waste disposal site (see links below)

Mowing Your Lawn

- When moving your lawn, leave the lawn clippings on the grass as free fertilizer
- Do not blow clippings into the street or sidewalks where they can be washed into storm drains

The key to keeping our community and environment healthy is properly disposing of these illicit discharge sources. See the following information for local drop-off locations and additional information.

Household Hazardous Wastes: Drop-Off Locations



Household hazardous materials being processed at a collection facility.

Alexandria

- Oil Recyling Location
- Recycling Drop Off Centers Near You

Arlington

• Household Hazmat

Falls Church

• Household Hazardous Waste

Loudoun County

• Loudoun County's Recycling Center Locations

Stafford

- Rappahannock Regional Solid Waste Board Household Hazardous Materials Collection Program
- Rappahannock Regional Solid Waste Board Recycling Program

Rules & Regulations



Alexandria

- Automotive Best Management Practices
- Illegal to Dump Anything Down the Storm Drain (Sec. 11-13-2)
- Illicit Discharge Detection and Elimination Program

Falls Church

- City of Falls Church Vehicle Registration
- Vehicle Registration Frequently Asked Questions

Loudoun County

- Loudoun County's Stormwater Management Program
- Recycling Requirements
- Household Hazardous Waste Disposal

Stafford

Stafford County Stormwater Pollution and Illicit Discharge Ordinance

If you would like to report illegal dumping in your area contact your local stormwater hotline

Local Stormwater Hotline Numbers

- Arlington County (703) 558-2222
- City of Alexandria (703) 746-4065
- Fairfax County (703) 324-5033
- City of Fairfax (703) 273-3067
- City of Falls Church (703) 248-5350 Extension 2
- Town of Herndon (703) 435-6853
- Town of Leesburg (703) 771-2790
- Loudon County (703) 777-0117
- Stafford County (540) 658-4559



Learn More!

Alexandria

- Storm Drain Markers
- Recycle at Home, School, Work or On the Go
- Oils Spills: Everything You Need to Know

Loudoun County

- Loudoun County Office of Solid Waste Management Stafford
- Stafford County Illicit Discharge Prevention Brochure

WATCH OUR ADS

Northern Virginia Clean Water Partners has been involved in a TV and radio ad campaign for the past year and plans to continue to campaign in 2014. The aim of the campaign is to expand our message of protecting the health of bodies of water in the Northern Virginia area and, in turn, the health of the Northern Virginia Community. If you would like more information about Northern Virginia Clean Water Partners visit our About Us Page.

Watch the TV ads!

- 2013 Rubber Ducks in the Neighborhood
- 2013 <u>Duckman Every Drop You Lose Nature</u>
- 2013 Devil Ducks
- 2013 Dog in the Bathroom
- 2013 <u>Rubber Ducks: Cleaner Streets Means</u> Cleaner Water
- 2013 <u>Rubber Ducks in the Neighborhood</u> <u>Espanol</u>



Finds

Listen to the radio ads!

- 2009 Stormwater Bathwater Ad with Fertilizer tagline
- 2009 Stormwater Bathwater Ad with Motor Oil tagline
- 2009 Stormwater Bathwater Ad with Pet waste tagline
- 2009 Stormwater Bathwater Ad in Spanish Motor Oil tagline
- 2008 The Call radio ad with Fertilizer tagline
- 2008 The Call with Motor Oil tagline
- 2008 The Call radio ad with pet waste tagline
- 2008 The Call in Spanish no tagline





Environment & Sustainability

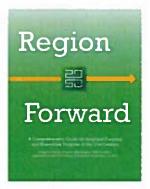
The City of Fairfax is dedicated to preserving the resources of our built and natural environment and to ensure our community has clean air and water, safe and healthy neighborhoods, a resilient economy, and access to housing and transportation choices.

Green Government Challenge



The City of Fairfax achieved a silver certification in the 2013 Green Government Challenge held by the Virginia Municipal League. The Green Government Challenge is a friendly competition designed to encourage implementation of specific environmental policies and practical actions that reduce the carbon emissions generated by both the local government and the broader community.

Greater Washington 2050 Compact



In April 2010, the Mayor and City Council signed a resolution endorsing the voluntary Greater Washington 2050 Compact. The City of Fairfax is committed to following the principles and goals set within Region Forward, a regional vision for a more accessible, sustainable, prosperous, and livable metropolitan Washington, developed by the Greater Washington Coalition. The plan includes specific goals and targets to guide future decisions and to measure progress towards meeting those goals.

Environmental Sustainability Committee





The Environmental Sustainability Committee is committed to guiding the City of Fairfax to become an environmentally sustainable "green city." This process involves resource conservation, preventing ecological harm, developing and using renewable resources and encouraging self-sufficient practices. The ESC will recommend programs and policies and undertake actions that will engage residents and businesses in the creation of a sustainable city.

ESC Meetings

The Environmental Sustainability Committee meets on the first Wednesday of each month. The meetings are typically held at the <u>Sherwood Community Center</u> and begin at 7:00 P.M. To determine the official meeting location and time of a specific meeting, check the posted agendas below.

07/09/2014	Agenda
06/04/2014	Agenda
05/07/2014	<u>Agenda</u>
04/02/2014	<u>Agenda</u>
03/05/2014	<u>Agenda</u>
02/05/2014	<u>Agenda</u>
01/15/2014	<u>Agenda</u>
12/04/2013	<u>Agenda</u>
11/06/2013	Agenda

Contact

If you have questions or would like more information about the Environmental Sustainability Committee, please contact the Staff Representative:

Stefanie Kupka 703.385.7816 Stefanie.Kupka@fairfaxva.gov

Members

The committee is comprised of eight members appointed by the City Council. If possible, membership

should include three members from the City of Fairfax business community. One member is to be selected to represent the community association recycling program chairpersons. All members except the business members must be city residents.

Current members:

Judy Fraser (Chair)
Matthew Cooper
Susan Crate
Thomas Kennedy
Timothy Killian
Bruce Knight
Kevin Lowery
Chris McGough

General Information

Overview of Committee

The committee will advise and assist the City Council and all Boards and Commissions on policies and practices dealing with the environment and energy conservation. In this capacity, the committee will act as an advocate for protecting, preserving and enhancing the environment. The committee will also provide a means for promoting discussion between the public and private sectors on issues related to the environment.

Outline of Committee Purpose and Functions

The purpose and function of the Committee will include the following, but is not limited exclusively to these items:

- To act as an advocate for protecting, preserving and enhancing the environment as it relates to issues under consideration by the City Council and Planning Commission.
- To serve in an advisory role to the City Council and all Boards and Commissions on environmental policy issues. The committee may recommend new ordinances, amendments to existing ordinances and other actions it deems appropriate. The committee may also recommend expenditures in connection with proposed programs.
- To provide a means for promoting discussion between the public and private sectors on issues related to the environment.
- To facilitate oversight and communication between the community association recycling chairpersons.
- To prepare a report to be given annually by the committee chairperson to the City Council which includes, but is not limited to these items:
- findings on the current condition of the city's environmental resources.
- proposed policies and programs that support the preservation, protection and enhancement of the city's environmental resources.
- evaluation as to the effectiveness of existing programs and policies to protect the environment.

Reports and Projects

Home Energy Conservation/Weatherization Workshop

The Environmental Sustainability Committee in partnership with the City of Fairfax, PEG Environmental Solutions and the Fairfax Renaissance Housing Corporation held a home energy efficiency workshop "Winterizing Your Home" on Saturday, November 10th. Experts provided guidance on topics such as caulking, weather stripping, smart thermostats, heating systems, windows, energy audits and more. If you missed it, check out some of the PDFs of brochures from the event.

- Home Sealing Brochure
- DIY Guide to Home Sealing
- Air Sealing
- Air Sealing Fact Sheet
- Home Energy Saving Solutions
- Retrofit Best Practices Guide
- Energy-Efficient Heating and Cooling (English)
- Energy-Efficient Heating and Cooling (Spanish)

Environment Survey Results

In order to better understand the interests of City of Fairfax residents regarding environmental issues the ESC created and disseminated a short survey. The survey was available online (and hard copy by request) for the month of April, 2012. The survey link was available on the city's website, CityScene, City Clips and was sent to eMAS (environmental category) recipients, civic association leaders and was available on the ESC's Facebook page. 119 people responded and most provided additional written comments. The results of the survey including comments provided can be viewed <a href="https://example.com/here-comments-comment

The ESC will be able to use the results to help guide the committee in determining its future priorities and will refer to the results and comments on the specific issues addressed.

ESC Reports and Memos

Date	Report/Memo Title	Summary
02/15/2013	Stormwater CIP Consideration of Stormwater Management in the Accotink Watershed	Stormwater management recommendations for the Accotink watershed
05/07/2013	Northfax Comments	Comments submitted on the Northfax drainage project at the intersection of Fairfax Blvd and Chain Bridge Road
05/08/2013	How to Improve Recycling in the City of Fairfax	At the request of the Mayor and City Council, the ESC completed an evaluation of the City's existing recycling program and provided recommendations on how to improve upon the program
05/10/2013	Proposed Redevelopment of	Comments submitted on the Layton Hall Redevelopment

	Layton Hall Comments	Proposal
06/18/2013	Stormwater BMP Inspection Memo	Comments on the use of the City's stormwater fund to finance the conduct of inspections and determinations of condition of privately owned BMP facilities in the City
06/25/2013	ESC Work SessionPresentation	Presentation from the June 25, 2013 Work Session with the Mayor and City Council. Presentation includes recommendations on improving recycling and stormwater management.
07/24/2013	Stormwater Report	Stormwater management recommendations
10/21/2013	Legislative Package Proposals	The ESC's 2014 Legislative Package Recommendations

Annual Report

Each year the members of the ESC submit a report to the City Council summarizing the committee's activities and recommendations for the year.

2010 Report

2011 Report

2012 Report

2013 Report

Environmental Sustainability Committee 2013 Annual Report

February 18, 2014

Over the course of 2013 the Environmental Sustainability Committee (ESC) addressed several areas of concern, predominantly stormwater and recycling. The impact of stormwater on our streams, parks and the city's budget remains of utmost concern. Committee members continue to track the evolving regulatory scene and its potential ramifications. The ESC also researched ways to improve recycling in the city in response to a request from City Council. Other areas addressed by the committee during 2013 included review proposed developments, transportation projects, the water system transfer, and the parks and recreation strategic plan. The ESC continued its outreach efforts by participating in the city's annual parade, school programs, and with a booth at the Fall Festival.

Committee Status

The committee had eight members this year, welcoming one new member in 2013 and ending the year with one vacancy. Several citizens also informally help and advise the committee on a regular basis and during the 2012 -2013 school year we had a student representative. At the end of the 2013 the School Board offered to create a liaison member to the ESC on a trial basis, which School Board member Jon Buttram has agreed to fill. The committee looks forward to a closer working relationship with the School Board that will give the committee an opportunity to build on the school's successes in the district's goal to achieve its environmental and sustainability goal in both operational and curricular areas. During the fall of 2013 a George Mason University student volunteered with the ESC and supported several committee and city efforts, in particular the Fall Festival booth and recycling at the Fall Festival, the Lanier Middle School courtyard garden project, and research on urban tree policies. In addition, ESC members have attended PRAB meetings on a regular basis in an informal liaison capacity. The ESC met with the City Council for a work session in June 2013 to present our 2012 annual report, and recycling and stormwater reports.

Stormwater

Stormwater issues continue to be of great importance to the ESC in its efforts to help guide the city towards a more environmentally sustainable future. The city faces future problems with local flooding, significant erosion in the Accotink Creek, and the potential high costs of compliance with pending federal and Commonwealth stormwater regulations.

The committee believes the city staff has made commendable inroads in updating key aspects of the city's stormwater management processes in 2013, completing a new SM4 permit, implementing planning necessary to meet the Virginia Stormwater Management Program's July 1, 2014 deadlines, and revising the city stormwater and storm drainage facilities zoning ordinance. A very thorough RFP for future contractual stormwater compliance, engineering and general civil design consultant services has been circulated which will increase the city's capacity to deal with stormwater issues in 2014. Additionally, The City Council substantially strengthened the financial stability of the Stormwater Fund by increasing the supporting tax rate during the 2014 budget process.

The ESC has continued to monitor the city's implementation of stormwater management. The committee made detailed comments regarding the stormwater projects of the proposed 2014 Capital Improvement Planning budget. Also, it examined significant development projects for probable environmental impacts, and submitted comments related to stormwater concerns regarding both the proposed redevelopment of the Layton Hall Apartments and the Northfax drainage project.

On June 25, 2013 the ESC made an overview presentation to the Mayor and City Council during a work session. At the Council's request, the ESC followed up with a comprehensive written report on July 27, 2013. The complete report is available at the ESC web site, but the summary conclusions follow: "As a result of its review of city stormwater issues over the past three years the ESC has reached several conclusions regarding the demanding current and pending state and federal regulatory requirements:

- 1) The root of the city's stormwater problems lies in the many years of build-out in the city resulting in a vast increase in impervious surfaces and increased runoff.
- 2) The ESC commends the city for beginning the critical work of establishing a stormwater fund, funding staffing, and identifying policy needs to address upcoming regulations.
- 3) Moving forward, the city should focus on a more comprehensive and coordinated effort that will pull together the many government and private stormwater related activities, move policies and practices from a focus on stormwater drainage projects to improvements in stormwater management and track the cumulative effects of all public and private projects.
- 4) There is potential for remediation and for meeting requirements of the pending regulations by 1) increasing the use of Low Impact Development construction techniques, and 2) mobilizing residents and businesses in improving stormwater management on private properties.

The report contains a number of additional specific recommendations and can be accessed via the ESC web page www.fairfaxva.gov/esc.

The ESC will continue to monitor stormwater planning and management implementation, development and road projects with stormwater implications, city budget and funding actions that will affect or establish stormwater funding in future years, and make appropriate recommendations to the Mayor and City Council, and propose alternative it identifies to appropriate city staff. The ESC especially values the cooperation of staff on these issues.

Recycling

The ESC evaluated the City's recycling program at City Council's request. Current operations were analyzed, peer jurisdictions reviewed, and discussions were held with stakeholders. The ESC identified a series of low cost/high impact improvements. Recommendations spanned six key areas - commercial recycling, recycling at public events, parks and facilities, residential recycling, yard waste or 'green' recycling, and electronic recycling – and were submitted to City Council at the June Work Session. The ESC is proud of the City's accomplishments in 2013:

- Recycling at city events. Recycling containers debuted at the Fall Festival for the first time and
 are available to support future citywide events. Volunteers worked successfully throughout the
 day to oversee the proper use of the bins.
- Recycling in the parks. Progress has advanced to the planning stage. Parks and Recreation proposed line items in their FY15 capital budget to initiate recycling in heavily used parks.
- Ongoing outreach expanded. Since its inception, the ESC provided city neighborhood recycling
 coordinators with regular emails about recycling. In 2013 the city's Sustainability Coordinator
 enlarged this program and also recruited new neighborhood recycling coordinators.
- Waste Management Plan. City staff have prioritized its need and requested funding which the ESC fully supports. The ESC also sees a new plan as an opportunity for the City to redefine its waste management objectives. The ESC recommends building on the City's friendly and responsive service tradition in the development of its waste minimization and recycling goals.

The ESC will continue to advocate for enhancements to the recycling program in 2014. Low cost, high impact opportunities remain within reach. Enhancing the commercial recycling data collection process and tapping into commercial recycling data already collected by Fairfax County can be instituted immediately. Additional tactics like larger recycling bins, targeted outreach and incentives, such as waiving the once per week hauling requirement for businesses recycling more than the minimum, are more challenging but should be prioritized in the coming years. The ESC looks forward to assisting the City's Sustainability Coordinator and Public Works Staff wherever possible. The committee's full recommendations are outlined in our Recycling Program Evaluation posted at www.fairfaxva.gov/esc.

Outreach

The ESC has always taken its commitment to outreach seriously, and this year was no different. The committee sponsored the third annual Earth Art Show, assisted with the Commission on Fine Arts Earth Day Concert, took part in the 4th of July parade and ran a booth at the Fall festival.

This year the Art Show included over 80 pieces of artwork from all four of the city's public schools. With a grant from the Commission on Fine Arts we were able to award prizes to two students from each school, and with the support of American Bistro, held a reception in honor of the artists in our schools.

For the 4th of July parade, the ESC also coordinated with Lanier's Eco Club and Fairfax High School's Green Club to highlight the work our students are doing to learn about and protect our environment. Ted Britt Ford showcased an all-electric Ford Focus.

The Fall Festival was a great success with a well attended booth, handouts on stormwater and pollution concerns, rain barrel demo, recycling information and free reusable bags along with a commitment to reduce the use of single use plastic bags. The ESC also supported a local community group, Transition Fairfax VA, whose volunteers also helped staff the committee booth.

The ESC is pleased to have an updated and easily accessed location on the city's web site. Access via the web will play an increasingly important role in outreach efforts. The ESC also has a facebook page which was used to advertise our meetings and events related to the city's environmental sustainability.

Schools

The ESC is proud of the advances our schools have made, from integrating environmental education to early grade levels to establishing an Envirothon Team at the high school. The ESC supported the Lanier Middle School Vernal Pool project through publicizing and volunteering, and assisted in the establishment of a pilot program to compost food waste in the Daniels Run Elementary School cafeteria. In conjunction with the recent addition of a School Board liaison to the ESC, the ESC looks forward to playing a supporting role to further the education of our youth on such topical issues as stewardship of our environment, energy efficiency, and resource protection.

Water System Transfer

The ESC reviewed and commented on the transfer of water service from our city-owned and operated system to service purchased from Fairfax County Water Authority. The committee was divided over this difficult issue, with the majority concerned that the current water source, Goose Creek, is less impacted by existing and potential pollutants than the water sources used by Fairfax Water. However, it was also acknowledged that the cost of maintaining the current water system at this point in time is likely prohibitive and not viable in the long term. The decision to move forward without a referendum on the issue was also of concern to some members.

Development Review and Comment

The ESC reviewed and commented on the Layton Hall redevelopment plans in May 2013. Committee members remain concerned about the impact of the proposed redevelopment on the Accotink Creek. As a resource that finds its genesis in our city, the Accotink is one of our most serious environmental responsibilities. The ESC identified many concerns about how the proposed redevelopment would reduce the health of the stream by reducing its buffer, increasing the volume of water in the stream, drastically reduce the amount of pervious area on the site and the removal of almost all mature trees. A link to the ESC's letter to Council identifying these concerns can be found at www.fairfaxva.gov/esc.

Parks and Recreation Department Master Planning

The ESC participated in Phase I of the Parks and Recreation strategic plan process. The ESC has several areas of concern with regard to our parks. Many of the parks abut streams and thus play an important role in buffering and protecting our streams. Erosion, loss of vegetative areas, and impervious surface area are some of the most important factors to address if the city's streams are to continue to function adequately. Secondly, invasive plants have overtaken our natural areas and are threatening the viability of native plants and ecosystems. Third, the ESC sees the parks as optimal locations for awareness raising and education, much as was done at Daniels Run Elementary habitat restoration. A fourth area of concern is the protection of our large trees. Invasive plants are damaging many of our trees, and heavy

storms are taking their toll as well. The ESC recognizes that natural areas are dynamic and that part of the city's role as steward is to monitor conditions and plan ways to maintain a thriving tree population. Finally, the buildings that Parks and Recreation oversees are in some cases aging and the ESC strongly urges the implementation of energy conservation improvements and removal of hazardous building materials. The ESC looks forward to continuing to follow and contribute to the master planning process in 2014.

2014 Work Plan

The 2014 scope of work is a result of both ongoing and newly identified issues of concern. The ESC plans to support the following projects in 2014:

- Integrated, comprehensive approach to stormwater management
- · City invasive plant management plan
- Alternative energy use in the city
- Homeowner education on issues of environment: stormwater, energy efficiency, invasive plants, use of bottled water, stream protection and low impact landscaping
- City tree protection plan
- Coordinated environmental initiatives throughout the city's schools
- Waste management and recycling

Conclusion

2013 was a busy and productive year for the ESC. The committee members remain steadfast in their determination to help the city improve its environmental sustainability. In its fourth year, the committee found that it has become better known throughout the community but recognizes the need to increase awareness among residents to ensure that the city can better identify and address issues of concern. The committee appreciates input from Mayor Silverthorne and City Council members, Planning Commission members, School Board members, and residents and welcomes all interested residents at our meetings. The members are cognizant that, despite the devotion of their time and energy, there is much more that could be done to create a more environmentally sound city beyond the capacity of the ESC. The committee has identified a broad array of issues to address in 2014, but find a common thread throughout is the need to develop better ways to inform and involve residents if we are to create a more sustainable city. We greatly appreciate the continued support of City Council members, residents, and staff as we all work together to improve the current and future sustainability of this unique and lovely city.

Summary of 2013 ESC Meetings

January 2013

2013 Work Plan; CIP discussion;

February 2013

Stormwater discussion re CIP funding and stormwater fund; finalize ESC 2013 work plan; CIP memo March 2013

Recycling discussion per letter from Mayor and City Council; Earth day planning, spring clean up April 2013

Earth Day Art Show, music event at Blenheim, discussion of sale of water system, recycling report finalized; vernal pool at Lanier

May 2013

Review of city projects Layton Hall and Northfax; Mosby Woods and Foxcroft flooding, stream restoration at Daniels Run Elementary School

June 2013

Parade and work session planning

July 2013

Parade participation with Lanier students, Britt Ford; work session with Mayor and City Council re recycling and stormwater

September 2013

Fall festival, legislative package; stormwater/zoning discussion

October 2013

Fall Festival; legislative package finalized

November 2013

School board liaison Jon Buttram joined the committee; transportation director Wendy Block Sanford met with ESC; solar energy real estate tax exemption discussion

December 2013

Joint meeting with ARB re zoning ordinance rewrite; annual report draft and development of 2014 work plan.

2013 reports and memos: All reports are posted www.fairfaxva.gov/esc

Date	Report/Memo
02/15/2013	Stormwater CIP Consideration of Stormwater Management in the Accotink Watershed
05/07/2013	Northfax Comments
05/08/2013	How to Improve Recycling in the City of Fairfax
05/10/2013	Proposed Redevelopment of Layton Hall
06/18/2013	Stormwater BMP Inspection Memo
06/25/2013	ESC Work Session Presentation
07/24/2013	Stormwater Report
10/21/2013	Legislative Package Proposals

FALL FESTIVAL 2013





































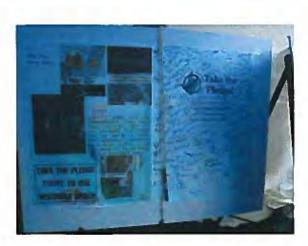






































































Environmental Sustainability Committee 2013 Annual Report

February 18, 2014

Over the course of 2013 the Environmental Sustainability Committee (ESC) addressed several areas of concern, predominantly stormwater and recycling. The impact of stormwater on our streams, parks and the city's budget remains of utmost concern. Committee members continue to track the evolving regulatory scene and its potential ramifications. The ESC also researched ways to improve recycling in the city in response to a request from City Council. Other areas addressed by the committee during 2013 included review proposed developments, transportation projects, the water system transfer, and the parks and recreation strategic plan. The ESC continued its outreach efforts by participating in the city's annual parade, school programs, and with a booth at the Fall Festival.

Committee Status

The committee had eight members this year, welcoming one new member in 2013 and ending the year with one vacancy. Several citizens also Informally help and advise the committee on a regular basis and during the 2012 -2013 school year we had a student representative. At the end of the 2013 the School Board offered to create a liaison member to the ESC on a trial basis, which School Board member Jon Buttram has agreed to fill. The committee looks forward to a closer working relationship with the School Board that will give the committee an opportunity to build on the school's successes in the district's goal to achieve its environmental and sustainability goal in both operational and curricular areas. During the fall of 2013 a George Mason University student volunteered with the ESC and supported several committee and city efforts, in particular the Fall Festival booth and recycling at the Fall Festival, the Lanier Middle School courtyard garden project, and research on urban tree policies. In addition, ESC members have attended PRAB meetings on a regular basis in an informal liaison capacity. The ESC met with the City Council for a work session in June 2013 to present our 2012 annual report, and recycling and stormwater reports.

Stormwater

Stormwater issues continue to be of great importance to the ESC in its efforts to help guide the city towards a more environmentally sustainable future. The city faces future problems with local flooding, significant erosion in the Accotink Creek, and the potential high costs of compliance with pending federal and Commonwealth stormwater regulations.

The committee believes the city staff has made commendable inroads in updating key aspects of the city's stormwater management processes in 2013, completing a new SM4 permit, implementing planning necessary to meet the Virginia Stormwater Management Program's July 1, 2014 deadlines, and revising the city stormwater and storm drainage facilities zoning ordinance. A very thorough RFP for future contractual stormwater compliance, engineering and general civil design consultant services has been circulated which will increase the city's capacity to deal with stormwater issues in 2014. Additionally, The City Council substantially strengthened the financial stability of the Stormwater Fund by increasing the supporting tax rate during the 2014 budget process.

The ESC has continued to monitor the city's implementation of stormwater management. The committee made detailed comments regarding the stormwater projects of the proposed 2014 Capital Improvement Planning budget. Also, it examined significant development projects for probable environmental impacts, and submitted comments related to stormwater concerns regarding both the proposed redevelopment of the Layton Hall Apartments and the Northfax drainage project.

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- 1) The root of the city's stormwater problems lies in the many years of build-out in the city resulting in a vast increase in impervious surfaces and increased runoff.
- 2) The ESC commends the city for beginning the critical work of establishing a stormwater fund, funding staffing, and identifying policy needs to address upcoming regulations.
- 3) Moving forward, the city should focus on a more comprehensive and coordinated effort that will pull together the many government and private stormwater related activities, move policies and practices from a focus on stormwater drainage projects to improvements in stormwater management and track the cumulative effects of all public and private projects.
- 4) There is potential for remediation and for meeting requirements of the pending regulations by 1) increasing the use of Low Impact Development construction techniques, and 2) mobilizing residents and businesses in improving stormwater management on private properties.

The report contains a number of additional specific recommendations and can be accessed via the ESC web page www.fairfaxva.gov/esc.

The ESC will continue to monitor stormwater planning and management implementation, development and road projects with stormwater implications, city budget and funding actions that will affect or establish stormwater funding in future years, and make appropriate recommendations to the Mayor and City Council, and propose alternative it identifies to appropriate city staff. The ESC especially values the cooperation of staff on these issues.

Recycling

The ESC evaluated the City's recycling program at City Council's request. Current operations were analyzed, peer jurisdictions reviewed, and discussions were held with stakeholders. The ESC identified a series of low cost/high impact improvements. Recommendations spanned six key areas - commercial recycling, recycling at public events, parks and facilities, residential recycling, yard waste or 'green' recycling, and electronic recycling – and were submitted to City Council at the June Work Session. The ESC is proud of the City's accomplishments in 2013:

- Recycling at city events. Recycling containers debuted at the Fall Festival for the first time and
 are available to support future citywide events. Volunteers worked successfully throughout the
 day to oversee the proper use of the bins.
- Recycling in the parks. Progress has advanced to the planning stage. Parks and Recreation proposed line items in their FY15 capital budget to initiate recycling in heavily used parks.
- Ongoing outreach expanded. Since its inception, the ESC provided city neighborhood recycling coordinators with regular emails about recycling. In 2013 the city's Sustainability Coordinator enlarged this program and also recruited new neighborhood recycling coordinators.
- Waste Management Plan. City staff have prioritized its need and requested funding which the ESC fully supports. The ESC also sees a new plan as an opportunity for the City to redefine its waste management objectives. The ESC recommends building on the City's friendly and responsive service tradition in the development of its waste minimization and recycling goals.

The ESC will continue to advocate for enhancements to the recycling program in 2014. Low cost, high impact opportunities remain within reach. Enhancing the commercial recycling data collection process and tapping into commercial recycling data already collected by Fairfax County can be instituted immediately. Additional tactics like larger recycling bins, targeted outreach and incentives, such as waiving the once per week hauling requirement for businesses recycling more than the minimum, are more challenging but should be prioritized in the coming years. The ESC looks forward to assisting the City's Sustainability Coordinator and Public Works Staff wherever possible. The committee's full recommendations are outlined in our Recycling Program Evaluation posted at www.fairfaxva.gov/esc.

Outreach

The ESC has always taken its commitment to outreach seriously, and this year was no different. The committee sponsored the third annual Earth Art Show, assisted with the Commission on Fine Arts Earth Day Concert, took part in the 4th of July parade and ran a booth at the Fall festival.

This year the Art Show included over 80 pieces of artwork from all four of the city's public schools. With a grant from the Commission on Fine Arts we were able to award prizes to two students from each school, and with the support of American Bistro, held a reception in honor of the artists in our schools.

For the 4th of July parade, the ESC also coordinated with Lanier's Eco Club and Fairfax High School's Green Club to highlight the work our students are doing to learn about and protect our environment. Ted Britt Ford showcased an all-electric Ford Focus.

The Fall Festival was a great success with a well attended booth, handouts on stormwater and pollution concerns, rain barrel demo, recycling information and free reusable bags along with a commitment to reduce the use of single use plastic bags. The ESC also supported a local community group, Transition Fairfax VA, whose volunteers also helped staff the committee booth.

The ESC is pleased to have an updated and easily accessed location on the city's web site. Access via the web will play an increasingly important role in outreach efforts. The ESC also has a facebook page which was used to advertise our meetings and events related to the city's environmental sustainability.

Schools

The ESC is proud of the advances our schools have made, from integrating environmental education to early grade levels to establishing an Envirothon Team at the high school. The ESC supported the Lanier Middle School Vernal Pool project through publicizing and volunteering, and assisted in the establishment of a pilot program to compost food waste in the Daniels Run Elementary School cafeteria. In conjunction with the recent addition of a School Board liaison to the ESC, the ESC looks forward to playing a supporting role to further the education of our youth on such topical issues as stewardship of our environment, energy efficiency, and resource protection.

Water System Transfer

The ESC reviewed and commented on the transfer of water service from our city-owned and operated system to service purchased from Fairfax County Water Authority. The committee was divided over this difficult issue, with the majority concerned that the current water source, Goose Creek, is less impacted by existing and potential pollutants than the water sources used by Fairfax Water. However, it was also acknowledged that the cost of maintaining the current water system at this point in time is likely prohibitive and not viable in the long term. The decision to move forward without a referendum on the issue was also of concern to some members.

Development Review and Comment

The ESC reviewed and commented on the Layton Hall redevelopment plans in May 2013. Committee members remain concerned about the impact of the proposed redevelopment on the Accotink Creek. As a resource that finds its genesis in our city, the Accotink is one of our most serious environmental responsibilities. The ESC identified many concerns about how the proposed redevelopment would reduce the health of the stream by reducing its buffer, increasing the volume of water in the stream, drastically reduce the amount of pervious area on the site and the removal of almost all mature trees. A link to the ESC's letter to Council identifying these concerns can be found at www.fairfaxva.gov/esc.

Parks and Recreation Department Master Planning

The ESC participated in Phase I of the Parks and Recreation strategic plan process. The ESC has several areas of concern with regard to our parks. Many of the parks abut streams and thus play an important role in buffering and protecting our streams. Erosion, loss of vegetative areas, and impervious surface area are some of the most important factors to address if the city's streams are to continue to function adequately. Secondly, invasive plants have overtaken our natural areas and are threatening the viability of native plants and ecosystems. Third, the ESC sees the parks as optimal locations for awareness raising and education, much as was done at Daniels Run Elementary habitat restoration. A fourth area of concern is the protection of our large trees. Invasive plants are damaging many of our trees, and heavy

storms are taking their toll as well. The ESC recognizes that natural areas are dynamic and that part of the city's role as steward is to monitor conditions and plan ways to maintain a thriving tree population. Finally, the buildings that Parks and Recreation oversees are in some cases aging and the ESC strongly urges the implementation of energy conservation improvements and removal of hazardous building materials. The ESC looks forward to continuing to follow and contribute to the master planning process in 2014.

2014 Work Plan

The 2014 scope of work is a result of both ongoing and newly identified issues of concern. The ESC plans to support the following projects in 2014:

- Integrated, comprehensive approach to stormwater management
- City invasive plant management plan
- Alternative energy use in the city
- Homeowner education on issues of environment: stormwater, energy efficiency, invasive plants, use of bottled water, stream protection and low impact landscaping
- City tree protection plan
- Coordinated environmental initiatives throughout the city's schools
- Waste management and recycling

Conclusion

2013 was a busy and productive year for the ESC. The committee members remain steadfast in their determination to help the city improve its environmental sustainability. In its fourth year, the committee found that it has become better known throughout the community but recognizes the need to increase awareness among residents to ensure that the city can better identify and address issues of concern. The committee appreciates input from Mayor Silverthorne and City Council members, Planning Commission members, School Board members, and residents and welcomes all interested residents at our meetings. The members are cognizant that, despite the devotion of their time and energy, there is much more that could be done to create a more environmentally sound city beyond the capacity of the ESC. The committee has identified a broad array of issues to address in 2014, but find a common thread throughout is the need to develop better ways to inform and involve residents if we are to create a more sustainable city. We greatly appreciate the continued support of City Council members, residents, and staff as we all work together to improve the current and future sustainability of this unique and lovely city.

Summary of 2013 ESC Meetings

January 2013

2013 Work Plan; CIP discussion;

February 2013

Stormwater discussion re CIP funding and stormwater fund; finalize ESC 2013 work plan; CIP memo March 2013

Recycling discussion per letter from Mayor and City Council; Earth day planning, spring clean up April 2013

Earth Day Art Show, music event at Blenheim, discussion of sale of water system, recycling report finalized; vernal pool at Lanier

May 2013

Review of city projects Layton Hall and Northfax; Mosby Woods and Foxcroft flooding, stream restoration at Daniels Run Elementary School

June 2013

Parade and work session planning

July 2013

Parade participation with Lanier students, Britt Ford; work session with Mayor and City Council re recycling and stormwater

September 2013

Fall festival, legislative package; stormwater/zoning discussion

October 2013

Fall Festival; legislative package finalized

November 2013

School board liaison Jon Buttram joined the committee; transportation director Wendy Block Sanford met with ESC; solar energy real estate tax exemption discussion

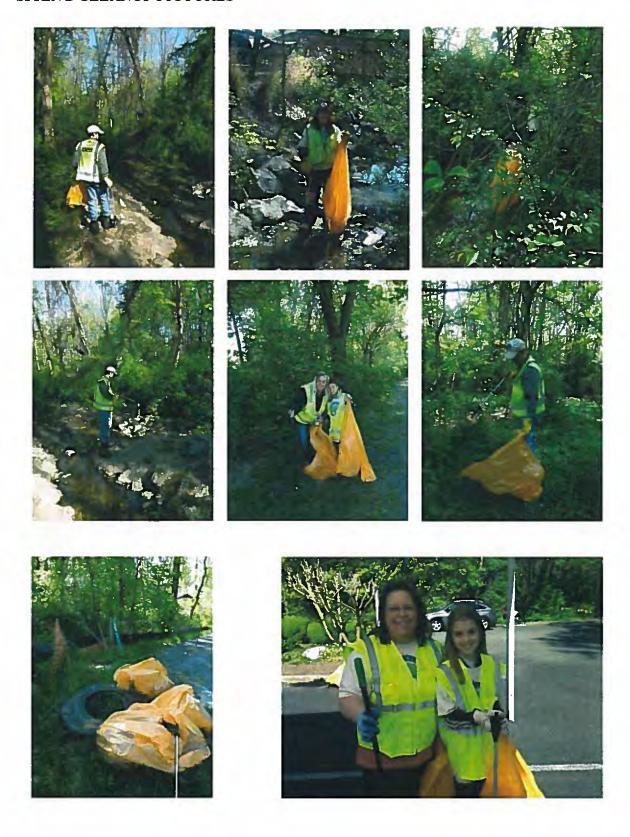
December 2013

Joint meeting with ARB re zoning ordinance rewrite; annual report draft and development of 2014 work plan.

2013 reports and memos: All reports are posted www.fairfaxva.gov/esc

Date	Report/Memo
02/15/2013	Stormwater CIP Consideration of Stormwater Management in the Accotink Watershed
05/07/2013	Northfax Comments
05/08/2013	How to Improve Recycling in the City of Fairfax
05/10/2013	Proposed Redevelopment of Layton Hall
06/18/2013	Stormwater BMP Inspection Memo
06/25/2013	ESC Work Session Presentation
07/24/2013	Stormwater Report
10/21/2013	Legislative Package Proposals

SPRING CLEANUP PICTURES











































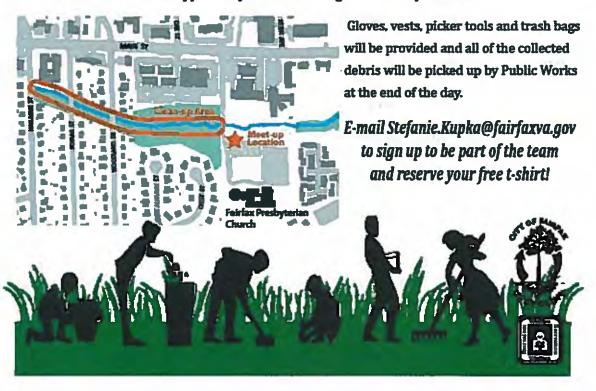


Join your co-workers to help make the City of Fairfax a cleaner and greener place!

Saturday, April 27, 9 am -12 pm

The Employee Recreation and Welfare Committee is looking for volunteers to participate in Clean-Up Day. Friends and family are welcome to join as well.

Great opportunity for students to get community service hours!



APPENDIX C-3

Exhibits for Minimum Control Measure #3- Illicit Discharge Detection and Elimination

City of Fairfax website "Reporting Illicit Discharges"

City of Fairfax Fire Department Office of the Fire Marshall- Spill or release report for hazardous materials

Reporting Illicit Discharges

If you are aware of any discharges into storm sewers, city streams or even on roads that appear to be of a chemical nature, including oil or any hazardous substances that should not be allowed into the city streams, please immediately contact the:

City of Fairfax Fire Marshal
 703-385-7830
 8:30 AM to 5:00 PM, weekdays

Police Department
 703-385-7924
 After hours and on weekends or holidays.



CITY OF FAIRFAX FIRE DEPARTMENT OFFICE OF THE FIRE MARSHAL SPILL OR RELEASE REPORT FOR HAZARDOUS MATERIAL INCIDENT

	Date of Event: «INCIDENT_DATE» Date of Report:						
	Time of Event: «DISPATCH_TIME» Location of Incident: «LOC_NUMBER» «LOC_STREET» «LOC_UNIT» «FULL_ADDRESS»						
	F.D. Incident Number: «FD_INCIDENT_» Companies Responding: «COMPANIES_RESPONDING»						
	Investigation Number: aFM_REPORT_»						
	Type of Incident: «TYPE_OF_INCIDENT»						
	Product released: «ORG_PRODUCT» Amount: «ORG_AMOUNT»						
	What happened to cause the release or spill: «ORG_CAUSE»						
	Responsible Party:						
	How many injuries occurred during this event if any: «INJ_CIV» Civilians, «INJ_FF» Fire Fighters						
	What area was affected by this event?						
١	What corrective action has been initiated? «INCIDENT_NOTES»						
,	Where facility procedures violated?						
	Was a Fire Code Notice of Violation Issued: «NOTICE_GIVEN» Section: «CODE_SECTION»						
	Photos taken: «PHOTOS_TAKEN» Evidence Taken: «EVIDENCE_TAKEN»						
	Weather Conditions «WEATHER» «TEMPERATURE» "F						
	Status: «DAT_FM_ACTION» Final Action: «DAT_FINAL_ACTION»						
	What other agencies have been notified: «What_other_agencies_have_been_notified»						
	F.D. Units on scene: «COMPANIES_RESPONDING»						
	Amount expended: \$ «DOL_EXPENDED_BY_CITY» Amount Recovered: \$ «DOL_RECOVER»						
	Total property loss: \$ «DOL_TOTAL»						
	This report filed by: «FM_Investigator_Name»						
	Signature of Investigator: Date:						
	Report reviewed by: Date						

APPENDIX C-4

Exhibits for Minimum Control Measure #4-Construction Site Stormwater Runoff Control

City of Fairfax, Department of Public Works- Inspection Report Example
City of Fairfax, Department of Public Works- Notice to Comply Example
City of Fairfax, Department of Public Works- Stop Work Order Example
City of Fairfax, Department of Public Works- Notice of Work Permit Suspension
Example City of Fairfax, Department of Public Works- Erosion and Sediment
Control Ordinance Summons Example

City of Fairfax Land Disturbance Permits Approved in October 2013 City of Fairfax Land Disturbance Permits Approved in November 2013 City of Fairfax Land Disturbance Permits Approved in January 2014 City of Fairfax Land Disturbance Permits Approved in February 2014

OF ARV

To:

City of Fairfax Department of Public Works

10455 Armstrong St Fairfax, VA 22030 703 385 7828 Date Issued: 01/01/05

INSPECTION REPORT

A	inspection of the site at Location/Address on 01/01/05 revealed the presence of the following violation(s):
	The following corrections are required:
	Notice is hereby given that the violations stated above shall be corrected on or before 01/01/05 at 9:00 AM. The site will be reinspected at that time.
)	The site will be reinspected at that time. Failure to address the above violation(s) will result in a Notice to Comply and/or Stop Work Order being issued. Please contact this department if there are any questions.
	Inspector Administrator Satoshi Eto

Filing No: VN05XXXX

City of Fairfax Department of Public Works

10455 Armstrong St Fairfax, VA 22030 703 385 7828 Date Issued: 01/01/05

NOTICE TO COMPLY

To:

A	n inspection of the site at <u>Location/Address</u> on <u>01/01/05</u> revealed the presence of the following violation(s): Inspection Report was sent on 01/01/06.
	The following corrections are required:
`	Notice is hereby given that the violations stated above shall be corrected on or before 01/01/05 at 9:00 AM. The site will be reinspected at that time.
J	Failure to comply with this notice will result in a Stop Work Order, revocation of your work permit, or legal enforcement action by the City of Fairfax to implement the appropriate corrections. City work forces may opt to correct the violation(s), and the associated costs will be deducted from bond or billed to the owner/addressee or permit holder. Please contact this department if there are any questions.
	Inspector Program Administrator Satoshi Eto



City of Fairfax Department of Public Works

10455 Armstrong St Fairfax, VA 22030 703 385 7828

Date Issued: 01/01/05

STOP WORK ORDER

An inspection of the site at Location/Address on 01/01/05 revealed the presence of the following violation(s).

A Notice to Comply was issued on 01/01/05.

You are hereby ordered to stop all land-disturbing activities on the above referenced project until the specified corrective measures have been taken. If work is not begun to correct this violation by 01/01/05, further legal action will be taken. Upon completion of the corrective action, the order shall be immediately lifted.

The following corrections are required:

Please contact this department if there are any questions.

Program

Administrator Satoshi Eto



To:

City of Fairfax Department of Public Works

10455 Armstrong St Fairfax, VA 22030 703 385 7828 Date Issued: 01/01/05

NOTICE OF WORK PERMIT SUSPENSION

			9
ļ	An inspection of the site at <u>Location/Address</u> on <u>01/01</u> A Notice to Comply was issued on 01/01/01.	1/05 revealed the pre	sence of the following violation(s).
Ç	The work permit pertaining to the above address/l Please contact our offices to discuss the terms of reinst disregard of this notice at the above address/location wi further legal action will be taken.	atement of this work p	ermit. Continuing work in
	Inspector	Program Administrator	Satoshi Eto

City of Fairfax

Filing No. VN05XXXX

Date Issued 01/01/05



EROSION AND SEDIMENT CONTROL ORDINANCE SUMMONS

To:

You are charged with violating Location of Violation: Location Description of Violation: Violation of: VESCL 10,1-563; Land Disturb State Minimum Standards (4VA MS-1: Permanenthemporary so MS-2: Soil stocking is stolization MS-3: Permanent vegetative co MS-4: Sediment controls first sto	ing Activity without AC50-30-40). \$	ut pennā/approved p:an. 100.00/day per viola	\$1,000.00/day	
Description of Violation: Violation of: VESCL 10,1-563: Land Disturbing the Minimum Standards (4VA) MS-1: Permanentiflemporary soints: Soil stockpile stebilization MS-2: Soil stockpile stebilization MS-3: Permanent vegetative commons. Soil soil soil soil soil soil soil soil s	ing Activity without C50-30-40]. \$	100.00/day per viola	ition	
Violation of: VESCL 10,1-563; Land Disturbing VESCL 10,1-563; Land Land Land Land Land Land Land Land	(C50-30-40). \$ il stabilization i	100.00/day per viola	ition	
□ VESCL 10,1-563: Land Disturbi State Minimum Standards (4VA □MS-1: PermanentRemporary sol □MS-2: Soil stockpile stebilization □MS-3: Permanent vegetative co □MS-4: Sediment controls first stabilization □MS-5: Euthen structure stabilization	(C50-30-40). \$ il stabilization i	100.00/day per viola	ition	
☐MS-1: Permanent/temporary sol ☐MS-2: Soil stockpile stebilization ☐MS-3: Permanent vegetative co ☐MS-4: Sediment controls first state ☐MS-5: Earthen structure stabilization	il stabilization 1 ver	L	tion	
☐MS-6: Storage capacity of sedin ☐MS-7: Cut and fill stope stabilities ☐MS-8: Adequate channel for col ☐MS-9: Adequate drainage for sil ☐MS-10: Storm sewer inlet protect	ep in land disturb allon nent traps/basins allon ncentrated runoff ope face	Ing activity C	MS-12: Live watercours MS-13: Live watercours MS-14: Live watercours MS-14: Live watercours MS-15: Live watercours MS-16: Underground ul MS-17: Censtruction et al. MS-17: Responsible for	e protection e crossing e crossing regulations we stabilization illity standards strang/stranger condition
Penalty: \$100.00				
ou are required to respond by 0	11/01/05 in one	of the following wa	ys:	
 same force and effect as a count Correct the violation and certify the Make check payable to City of For Treasurer's Office, City Mail, 104t 	judgment, but is not nat the violation has aidux. Print fling nu 55 Armstrong Stree s) shown on this s below and mail this	; a complete by algoring internated by algoring internated above on the c ; Room 208, Fairlais, VA 23 ummons: a completed licitics to the Di	ny pagasia. Deck. Payment may be mad 2030. apt of Public Works, City Hal	I, 19455 Armstrong St. Fairlax, VA 72030,
COMPLETE AND SIGN:	☐ Admit	☐ No Contest	Contest in C	
COMPECTE AND SIGH.		-		
Name:				
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I hereby cardly under penalty of law, the and have corrected the violation that I	have admitted to or	IGE AUTOU I MANS SESSONS L		Date:
I hereby cartify under penalty of law, the and have corrected the violation that I signature:	have admitted to or	Cartific	eto of Service	
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I hereby cartify under penalty of law, the and have corrected the violation that I signalure: I personally observed the violation not address of the respondent or the respon	have admitted to or ed and state that I a podent's agent and	Certific	ato of Service artment of Pubac Works, the artment of Pubac Works the	to have seeme of this thehel was Denailed to the last know

PROJ TYPE	ADDRESS	OWNER	APPLICANT NAME	PHONE NUMBER	APPL DATE	PROJECT DESCRIPTION
NO PERMITS FOI	R JUNUARY					
Permit-G	10709 Orchard St	Stephen Lang-Stanley Martin	Stephen Lang-Stanley Martin	703-964-5000	February 2014	0.25 AC

City of Feirfax Land Disturbing Plans Approved January, February 2014	DCR / Grading Permits / Report City of Feirfax Land Disturbing Plans and Permits					
ROJ TYPE ADDRESS	OWNER	APPLICANT NAME	PHONE NUMBER	APPL DATE	PROJECT DESCRIPTION	
					T NOTECT DESCRIPTION	
O PERMITS FOR JUNUARY		<u> </u>				
Permit-G 10709 Orchard St	Stephen Lang-Stanley Martin	Stephen Lang-Stanley Martin	703-964-5000	February 2014	0.25 AC	

DCR / Grading F

City of Fairfax Land Disturbing Plans and Permits Approved August, 2013

ADDRESS .	OWNER	APPLICANT NAME	PHONE NUMBER	APPL DATE
4113 ROBERTS RD	VISION HOMES, INC.	VISION HOMES, INC.	703-309-7633	08/13/2013
4115 ROBERTS RD	VISION HOMES, INC.	VISION HOMES, INC.	703-309-7633	08/13/2013
	4113 ROBERTS RD	4113 ROBERTS RD VISION HOMES, INC.	ADDRESS OWNER APPLICANT NAME 4113 ROBERTS RD VISION HOMES, INC. VISION HOMES, INC. 4115 ROBERTS RD VISION HOMES, INC. VISION HOMES, INC.	4113 ROBERTS RD VISION HOMES, INC. VISION HOMES, INC. 703-309-7633

<u>Permits / Report</u>

PROJECT DESCRIPTION

GRADING FOR BUILDING (2) NEW HOMES - 4113 & 4115 ROBERTS 0.39 AC GRADING FOR BUILDING (2) NEW HOMES - 4113 & 4115 ROBERTS 0.39 AC

DCR / Grading Permits / Report

City of Felriex Land Disturbing Plans and Permits

Approved November, December 2013

PROJ TYPE	ADDRESS	OWNER	APPLICANT NAME	PHONE NUMBER	APPL DATE	PROJECT DESCRIPTION
Permit-G	3914 Estel Rd	Huynh Phuong	A.R. Design Group	703-926-0546	Nov-13	0.78 AC
Permit-G	10716 Scott Dr	Tracy Baughan	Tracy Baughan	703-972-2080	Nov-13	0.28 AC
NO PERMIT	S FOR DECEMBER					

DCR / Grading Permits / Report

? City of Fairfax Land Disturbing Plans and Permits Approved July, 2013

PROJ TYPE

ADDRESS

OWNER

APPLICANT NAME

PHONE NUMBER APPL DATE

PERMIT-G 3749 CHAIN BRIDGE RD MCCOY, FREDERICK J & BARBARA J MCCOY, FREDERICK J & BARBARA J 703 794 9800

7/25/2013

PROJECT DESCRIPTION
MAJOR GRADING FOR STOOP, .086 AC

BMP AGREEMENTS RECORDED IN FISCAL YEAR 2014

PROJECT ADDRESS OWNER APPLICANT APPL DATE PROJECT DESCRIPTION

14030045 10823 CAR CHRISTOPI CHRISTOPI ####### AVERY PARK / ACCOTINK CREEK / 1.1 ACRES / 1.2 ACRES

14020067 10320 LAY SEVENTEE! SEVENTEE! ####### LAYTON HALL REDEVELOPMENT PROJECT

13100104 4310 CHAI RICHMONI RICHMONI ######## JOHNSON CREST BMP AGREEMENT

13090113 3602 MCLETYSONS FII ROSEWOO ####### UNDERGROUND DOMED SWM FACILITY/SWM/02070010/2.95 ACRES SEDIMENT

APPENDIX C-5

Exhibits for Minimum Control Measure #4 - Post-Construction Stormwater Management in New Development and Re-Development

City of Fairfax SWM/BMP Adopted Annual Budget for Stormwater Fund FY 2013/2014

- Dog Park Design and Construction
- Recycling Containers and Equipment for Parks
- Storm Water Pipe Deficiencies Identified During 2012 Inspection
- Video Inspection of Storm Lines
- Storm Drainage Repair for Paving Schedule
- Storm Drain Maintenance
- Storm Sewer Lining Rehabilitation
- Replacement of Failing Galvanized Storm Drainage Systems
- Storm Drainage Outfall Maintenance & Repair
- Driveway Pipe Replacement Project
- Municipal Separate Storm Sewer System (MS4)
- Chesapeake Bay TMDL Action Plan
- BMP/SWM Inspection
- BMP for Property Yard
- Assembly Drive Drainage Improvements
- Old Town Drainage and Water Main Improvements
- Park Road and Fern Street Drainage & Road Improvements
- McLean Avenue Drainage Improvements
- Cedar Avenue Drainage Improvements
- Roberts Road & Forest Avenue Drainage Improvements
- Flood Study Foxcroft Colony & Mosby Woods Condos
- Stream Evaluation and Restoration
- Fairfax Blvd, & Oak St. Storm Drain Maintenance
- Improvement Along Burke Station Road
- Scott Drive Road Improvements
- Northfax Storm Drainage & Intersection Improvements

City of Fairfax, Performance Measures for FY 13/14

City of Fairfax Private SWM/BMP Sample letter to owners for annual maintenance of facilities

City of Fairfax SWM/BMP Inspection Report Example

City of Fairfax, Department of Community Development and Planning: Zoning Enforcement. Division- Notice of Violation and Penalty Example

Privately Owned Stormwater Management/Best Management Practices (SWM/BMP) List

FY 2014 Adopted Budget - City of Fairfax, Virginia

FUNCTION: Stormwater Fund

DEPARTMENT:

DIVISION OR ACTIVITY:

Budget Comments:

The FY 2014 Proposed Budget notes a dedicated two cents on the City's real estate tax rate for the Stormwater Fund. This is a proposed increase of one cent from FY 2013 due to the increasing need for stormwater project funding. These funds will be used as part of the City's plan to address aging infrastructure and pending regulations from the federal government regarding stormwater management. One cent on the tax rate will generate approximately \$545,000 in FY 2014. A series of projects are scheduled to be funded by these monies and are noted in the accompanying pages of this section.

			PROJEC	TINFOR	MATION	
Project N	ame:	DOG PAR	K DESIGN A	ND CONST	JCTION	
			Compreh	ensive Plan	Element	
J	Public Sen	ice and F				Environment
	☐ Economy					Housing
	Community Appearance					Transportation
	Land Use	7.4				Other City Plan/Policy
Statemen	t of Need:		a mining	Picture:	, ,	
	rty. A location					
Year	Brologi	Cost		D.	irposa of f	Synanditura
Adopted	Project	CUSI		Pl	ווי שפטעווי	Expenditure
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2015						
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2017						
2018						
2019	 	400 111				
Total		\$50,000				
>2019	Manage at at 1	A	- A	A - A	- l	Saucanus Saucani
	Source(s)	Operati	ng Cost(s)	Staffing	g Levels	Revenues Generated
Gene	ral Fund		1,500		0	\$0
	Origin	of Project			С	hange from Previous CIP
	City Counc				4	No Change
	Board/Con					Increase in Amount
7	Citizen/Civ	ic Associa	ition			Decrease in Amount
	Staff					New Project
	Other: rdinating De				ND RECRE	Other:
						SATION

Project No	ame: Recycling Conta	PROJECT			
	ensive Plan Reference				
		-			1000
comprend	ensive Plan Element Public Service and F	and the land		D	Environment
		acinues	-		
-	Economy				Housing
	Community Appeara	nce			Transportation
	Land Use t of Need:		Picture:		Other City Plan/Policy
Park, Thai Park. The	e Park, Ratcliffe Park, S iss Memorial Park and S Project is recommend Recreation Advisory B	Van Dyck ed by the		2501	ILIS A CANS O
	Project Cost	1	PL	imose of	Expenditure
Year				-	
Adopted	1				
Adopted 2014		Domeline C			
Adopted 2014 2015		Recycling Pr	rogram		
Adopted 2014		Recycling Pr	rogram		
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Adopted 2014 2015 2016 2017	\$45,000		rogram		
Adopted 2014 2015 2016 2017 2018 2019 Total			rogram		
Adopted 2014 2015 2016 2017 2018 2019 Total >2019	\$45,000 \$45,000			Lavels	Dougnus Constitution
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$45,000 \$45,000 Source(s) Operatir	g Cost(s)	rogram Staffing	Levels	Revenues Generated
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Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$45,000 \$45,000 Source(s) Operational Fund T Origin of Project	g Cost(s)			
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$45,000 \$45,000 Source(s) Operation of Project City Council Board/Commission	ng Cost(s)			\$0 hange from Previous CIP No Change Increase in Amount
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Gener	\$45,000 \$45,000 Source(s) Operation of Project City Council Board/Commission Citizen/Civic Association Citizen/Civic Association	ng Cost(s)			\$0 hange from Previous CIP No Change Increase in Amount Decrease in Amount
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Gener	\$45,000 \$45,000 Source(s) Operation of Project City Council Board/Commission	ng Cost(s)			\$0 hange from Previous CIP No Change Increase in Amount

PROJECT INFORMATION								
Project Name: STORM WATER PIPE DEFICIENCIES IDENTIFIED DURING 2012 INSPECTION								
Cor	mprehensi	ve Plan Ref	erence:	PFS-2.2 ()	p. 84)			
			Compreher	isive Plan	Element			
	Public Ser	rvice and F	acilities		J	Environment		
	Economy					Housing		
		ty Appearai	nce		7	Transportation		
	Land Use	, , , , , , , , , , , , , , , , , , , ,				Other City Plan/Policy		
Statemen	t of Need:			Picture:				
system co Woolpert I in Basin 1	These funds are requested to address storm water system defects identified in the storm system condition assessment done by Woolpert Engineering in FY 2012 and FY 2014 in Basin 1 and Basin 2.							
Year	Projec	ct Cost		Pu	rpose of E	Expenditure		
Adopted								
2014						fx Blvd, and Ffx Blvd (Basin 1)		
2015						on Park Rd (Basin 2)		
2016						mined by 2014 video inspection		
2017 2018						mined by 2014 video inspection		
2019						mined by 2016 video inspection mined by 2016 video inspection		
Total		\$507,000	Lihe Lehiaceu	ieniis io pa	201 2 D 0 (6L	milited by 2016 video inspection		
>2019			Pine rentecen	ants to Pa	sin 4 dater	mined by 2016 video inspection		
	Source(s)	Operation	ng Cost(s)	Staffing	Levels	Revenues Generated		
	ater Fund	•	\$0) Levels	\$0		
Storniwa		of Project	₩0		-	nange from Previous CIP		
	City Coun	cil			├ <u>─</u> ─ <u>~</u>	No Change		
	Board/Cor			1	J	Increase in Amount		
		vic Associa	tion			Decrease in Amount		
	Staff					New Project		
	Other:					Other:		
User/Coo	rdinating C	epartment	Jser/Coordinating Departments: Public Works, Street Division					

	PROJECT INFORMATION							
Project N	Project Name: VIDEO INSPECTION OF STORM LINES							
Cor	nprehensive Plan Refe	егелсе:	PFS-2.2 (p	. 84)				
		Comprehen	sive Plan I	Element				
<u> </u>	Public Service and Fa	cilities		1	Environment			
	Economy				Housing			
	Community Appearar	ıce			Transportation			
	Land Use				Other City Plan/Policy			
			Picture:					
Statement of Need: This project is needed to ensure that the aging 300,000 linear feet of storm line infrastructure is visually inspected. The City's storm system will be divided into water sheds and evaluated. The year after the evaluation will be used to make repairs. The evaluation information will provide the City with future CIP projects and assist staff with maintenance management.			The state of the s		JONI			
Year	Project Cost		Pur	pose of E	kpenditure			
Adopted								
2014	\$125,000	TV storm syst	em					
2015 2016	125 000	TV storm syst	<u> </u>					
2017	123,000	i v storm syst	D111					
2018	125,000	TV storm syst	em					
2019								
Total	\$250,000							
>2019		TV storm syst						
Funding:	Source(s) Operatir	ng Cost(s)	Staffing	Levels	Revenues Generated			
Stormwa		\$0		-	\$0			
	Origin of Project				ange from Previous CIP			
<u> </u>	City Council		211 3	1	No Change			
<u> </u>	Board/Commission	11	1 1	_;;	Increase in Amount			
7	Citizen/Civic Associa	uon	1117 388		Decrease in Amount			
	Staff Other:		2 7 9	 	New Project Other:			
Liser/Coo	ouici. Minstina Densaments	· Public Wor	irc Street	Division	ouid.			

roject N	2000	PROJECT			
	lame: STORM DRAIN/	AGE REPAIR	FOR PAVIN	G SCHE	DULE
Co	mprehensive Plan Ref	erence:	PFS-2.2 (F	. 84); C	A-1.5 (p. 103)
		Comprehe	nsive Plan I		
N.	Public Service and F	acilities		্	Environment
	Economy				Housing
	Community Appeara	nce		7	Transportation
	Land Use				Other City Plan/Policy
nfrastruct aving co	ect is to address all storr ture issues prior to road nstruction. Work would neement and structure re	overlay include storm			
			72	. 38	
Vanr	Project Cost		Diar	nose of	Evnenditure
Year Adopted	Project Cost		Pur	pose of	Expenditure
		Pipe replace			
dopted	\$40,000 40,000	Pipe replacer	ment & struc	ture repo	air/replacement prior to paving air/replacement prior to paving
Adopted 2014 2015 2016	\$40,000 40,000 50,000	Pipe replacer Pipe replacer	ment & struc ment & struc ment & struc	ture repo ture repo	air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving
2014 2015 2016 2017	\$40,000 40,000 50,000 50,000	Pipe replacer Pipe replacer Pipe replacer	ment & struc ment & struc ment & struc ment & struc	ture repo ture repo ture repo ture repo	air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving
2014 2015 2016 2017 2018	\$40,000 40,000 50,000 50,000 60,000	Pipe replacer Pipe replacer Pipe replacer Pipe replacer	ment & struc ment & struc ment & struc ment & struc ment & struc	ture repr ture repr ture repr ture repr	air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving
2014 2015 2016 2017 2018 2019	\$40,000 40,000 50,000 50,000 60,000	Pipe replacer Pipe replacer Pipe replacer Pipe replacer Pipe replacer	ment & struc ment & struc ment & struc ment & struc ment & struc	ture repr ture repr ture repr ture repr	air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving air/replacement prior to paving
2014 2015 2016 2017 2018 2019 Total	\$40,000 40,000 50,000 50,000 60,000 \$260,000	Pipe replacer Pipe replacer Pipe replacer Pipe replacer Pipe replacer	ment & structurent	ture repo ture repo ture repo ture repo ture repo ture repo	air/replacement prior to paving air/replacement prior to paving
2014 2015 2016 2017 2018 2019 Total >2019	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$80,000	Pipe replacer Pipe replacer Pipe replacer Pipe replacer Pipe replacer Pipe replacer	ment & structurent & structure	ture repo ture repo ture repo ture repo ture repo ture repo	air/replacement prior to paving air/replacement prior to paving
2014 2015 2016 2017 2018 2019 Total >2019 unding	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$60,000 \$60,000 \$60,000	Pipe replacer Ripe replacer Ripe replacer	ment & structurent & structure	ture reporture r	air/replacement prior to paving Revenues Generated
2014 2015 2016 2017 2018 2019 Total >2019 unding	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000	Pipe replacer ng Cost(s)	ment & structurent & structure	ture reporture r	air/replacement prior to paving Revenues Generated \$0
2014 2015 2016 2017 2018 2019 Total >2019 unding	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 Operation of Project	Pipe replacer ng Cost(s)	ment & structurent & structure	ture reporture r	air/replacement prior to paving Revenues Generated \$0
2014 2015 2016 2017 2018 2019 Total >2019 unding	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$70,000 \$70,000 City Council	Pipe replacer ng Cost(s)	ment & structurent & structure	ture repriture r	air/replacement prior to paving Revenues Generated \$0 Change from Previous CIP
2014 2015 2016 2017 2018 2019 Total >2019 unding	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$	Pipe replacer ng Cost(s)	ment & structurent & structure	ture reporture r	air/replacement prior to paving Revenues Generated \$0 Change from Previous CIP No Change Increase in Amount
2014 2015 2016 2017 2018 2019 Total >2019 unding	\$40,000 40,000 50,000 50,000 60,000 \$260,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$60,000 \$70,000 \$70,000 City Council	Pipe replacer ng Cost(s)	ment & structurent & structure	ture repriture r	air/replacement prior to paving Revenues Generated \$0 Change from Previous CIP

		PR	OJECT	INFORM	ATION	
Project N	lame: STORM D					
riojecti	tunic. OTORNID	TOURNUE II	medici Ele	Alton		Cold Class I
Co	mprehensive Pla	an Referenc	:e:	PFS-2.2 (p	. 84); CA	-1.5 (p. 103)
		Cor	mprehens	sive Plan E	lement	
1	Public Service	and Faciliti	es			Environment
	Economy					Housing
	Community Ap	nearance	\neg	1		Transportation
	Land Use	peararios	-			Other City Plan/Policy
Statemer	nt of Need:			Picture:		Totales only I lains only
the City's these faci consists o cleaning o structures structures	for contract maint storm drainage s ilities function pro of flushing storm s out and re-parging s, repairing the top s, blockage removed and reconstruction of	ystem to ensperly. Maint sewer pipes, g drainage ps of the draival of trees a	sure tenance inage and			
Vasr	Brainet Co.			Pur		
Year Adopted	Project Co.	st		Рип	pose of E	Expenditure
			n drainace			expenditure
Adopted	\$9	90,000 Storm	n drainage	e maintena	nce	expenditure
Adopted 2014 2015 2016	\$9 9	90,000 Storm 90,000 Storm 90,000 Storm	n drainage n drainage	e maintena e maintena e maintena	nce nce	expenditure
Adopted 2014 2015 2016 2017	\$9 9 10 10	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm	n drainage n drainage n drainage	e maintena e maintena e maintena e maintena	nce nce nce	expenditure
Adopted 2014 2015 2016 2017 2018	\$9 10 10	90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm	n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena	nce nce nce nce	expenditure
Adopted 2014 2015 2016 2017 2018 2019	\$5 9 10 10 11	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm	n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena	nce nce nce nce	expenditure
Adopted 2014 2015 2016 2017 2018 2019 Total	\$5 9 10 10 11 11 \$51	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm	n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena	nce nce nce nce	expenditure
Adopted 2014 2015 2016 2017 2018 2019 Total >2019	\$5 9 10 10 11 11 \$51	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena	nce nce nce nce	
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$5 10 10 11 11 \$51 \$0urce(s) 0	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena e maintena Staffing	nce nce nce nce nce	Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$5 10 10 11 11 \$51 \$51 \$0urce(s) O	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena	nce nce nce nce nce	Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$5 10 10 11 11 \$51 \$51 \$0urce(s) O ater Fund	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena e maintena Staffing	nce nce nce nce nce	Revenues Generated \$0 senge from Previous CIP
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$5 10 10 11 11 \$51 \$51 \$0urce(s) O ater Fund Origin of Pr	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena e maintena Staffing	nce nce nce nce nce nce	Revenues Generated \$0 nange from Previous CIP No Change
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$5 10 10 11 11 \$51 \$51 \$0urce(s) O ater Fund Origin of Pr City Council Board/Commis	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena e maintena Staffing	nce nce nce nce nce	Revenues Generated \$0 nange from Previous CIP No Change Increase in Amount
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Stormw	\$50	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena e maintena Staffing	nce nce nce nce nce nce	Revenues Generated \$0 nange from Previous CIP No Change Increase in Amount Decrease in Amount
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	\$5 10 10 11 11 \$51 \$51 \$0urce(s) O ater Fund Origin of Pr City Council Board/Commis	90,000 Storm 90,000 Storm 90,000 Storm 90,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm 10,000 Storm perating Co	n drainage n drainage n drainage n drainage n drainage n drainage	e maintena e maintena e maintena e maintena e maintena e maintena e maintena Staffing	nce nce nce nce nce nce	Revenues Generated \$0 nange from Previous CIP No Change Increase in Amount

			PROJECT	INFORM	ATION	
Project N	ame: STOP	M SEWER	LINING REH	ABILITATIO	N	
Co	mprehensiv	re Plan Ref	erence:	ENV-2.1 (p	. 34); PF	S-2.2 (p. 84)
			Comprehen	sive Plan E	lement	
10	Public Ser	vice and F			U	Environment
						Housing
H		у Арреага	700	6 6	H-	Transportation
-	Land Use	y Appearai	ice	4	-	Other City Plan/Policy
Statemen	it of Need:			Picture:		Other City PlantPolicy
the storm linings ag collapse a plastic line pipe. Approxim. 15" pipe (18" pipe (Costs incl	e and deterion and lose caper is installed at cost for I @\$50/linear in @\$65/linear in determined and and and and and and and and and an	As concreterate, section acity. To produce the insingual increases foot foot attorn, pre T	e storm sewer ons can	1		
Year	Prolec	t Cost		Pur	pose of E	xpenditure
Adopted						
2014		\$70,000	Reline storm	sewers		
2015			Reline storm			
2016			Reline storm			
2017			Reline storm			
2018			Reline storm			
2019			Reline storm	sewers		
Total		\$440,000				
>2019			Reline storm			
Funding	Source(s)	Operati	ng Cost(s)	Staffing	Levels	Revenues Generated
Stormw	ater Fund		\$0	0		\$0
		of Project	-	10000	C	nange from Previous CIP
	City Coun	cil		4 6 3		No Change
	Board/Cor				1	Increase in Amount
		/Ic Associa	tion			Decrease in Amount
· ·	Staff			1 1 1		New Project
	Other:					Other:
User/Coo	rdinating D	epartment:	s: Public Wo	rks, Street	Division	

			PROJECT	INFORM	ATION	
Project N	ama: DEDI	ACEMENT				M DRAINAGE SYSTEMS
	mprehensiv			PFS-2.2 (r		III DRAINAGE STSTEING
		- / (2)	Comprehen			
J	Public Sen	ulaa and E		3140 1 1217 1		Environment
		vice and Fi	acmues			1
┝╩┈	Economy					Housing
	Communit	y Appeara	nce			Transportation
	Land Use			Object to		Other City Plan/Policy
				Picture:		
Statement of Need: This project provides for the replacement of the City's galvanized storm drain systems. Failed storm sewer mains create sinkholes and hazards. The failing systems would be replaced with HDPE pipe and new structures.			and the same of th			
Year	Projec	t Cost		Pur	pose of E	xpenditure
Adopted						
2014		\$75,000	Replace galva	nized stom	n drain	
2015			Replace galva			
2016		80,000	Replace gaiva	nized stom	n drain	
2017			Replace galva			
2018		90,000	Replace galva	nized stom	n drain	
2019			Replace galva	nized stom	n drain	
Total		\$440,000				
>2019		\$100,000	Replace galva	nized stom	n drain	
	Source(s)		ng Cost(s)	Staffing	Levels	Revenues Generated
Stormwa	ter Fund		\$0			\$0
<u> </u>	Origin	of Project			Ch	ange from Previous CIP
⊢∺ —	City Counc				-;;-	No Change
├ ┼	Board/Corr					Increase in Amount
└ ┼─	Citizen/Civ	ic Associa	tion		_ ;;	Decrease in Amount
4	Staff			1	片	New Project
<u> </u>	Other:			Lancisco	<u> </u>	Other:
User/Coordinating Departments: Public Works, Str					Division	

			000 100		ATION			
			PROJECT					
Project Na	ame: STOF	M DRAINA	IGË OUTFAL	L MAINTEN	ANCE &	REPAIR		
Cor	nprehensiv	e Plan Ref	егепсе:	PFS-2.2 (p	. 84)			
			Compreher					
T.	Public Ser	vice and Fa			Ū.	Environment		
	Economy					Housing		
	Communit	v Appeara	nce			Transportation		
	Land Use	, , , , , , , , , , , , , , , , , , , ,				Other City Plan/Policy		
Statemen	t of Need:			Picture:				
storm drain facilities di consists of stabilization debris, and ditchlines.	f outfall rebu on, blockage d reconstruc There are	to ensure Constructiding, cree removal of tion of cond 45 outfalls	these tion typically k/slope trees and crete					
Year	Projec	t Cost		Pur	pose of i	Expenditure		
Adopted 2014		\$30,000	Ditchline out	fall and tribu	dans evets	em maintenance		
2015		30.000	Ditchline, out	fall and tribu	tary syste	em maintenance		
2016		40,000	Ditchline, out	fall and tribu	tary syste	m maintenance		
2017		40,000	Ditchline, out	fall and tributary system maintenance				
2018		50,000	Ditchline, out	fall and tributary system maintenance				
2019			Ditchline, out	fall and tributary system maintenance				
Total		\$210,000						
>2019		\$50,000	Ditchline, out	fall and tribu	tary syste	em maintenance		
	Source(s)		ng Cost(s)	Staffing	Levels	Revenues Generated		
Stormwa	ter Fund		\$0		•	\$0		
		of Project		A SERVICE AND A	CI	hange from Previous CIP		
┝╬┷	City Counc					No Change		
┝┼┈	Board/Con				2	Increase in Amount		
├┼┼─	Citizen/Civ	IC ASSOCIA	tion		_;-	Decrease in Amount		
=	Staff Other:				- ;;	New Project Other:		
		nartment	: Public Wo	rie Street	División	jouiet.		
	· emeany Di	عاد ۱۱۱۲ سم	: usite till	ina, uutet	-11131011			

-		PROJECT	INFORM	ATION	· · · · · · · · · · · · · · · · · · ·
Project N	ame: DRIVEWAY PIPI				
Col	marahansiya Blan Baf	V60000	DE0.221	RAIL CA	-1.5 (p. 103)
COI	mprehensive Plan Ref				·1.0 (p. 100)
77	Bublic Condes and Fr	Comprehe	nsive Plan	Element	Tendarana.
-	Public Service and Fa	icinues		-	Environment
	Economy		- 3	-	Housing
	Community Appeara	ıce		_;_	Transportation
	Land Use It of Need:		Picture:	Ш	Other City Plan/Policy
would allo	ays has deteriorated. The new pipe installation in illitation for 15 to 20 proper year.	and right-of-			
Year	Project Cost		Pur	pose of F	xpenditure
Adopted					
2014					nd ditchline rehabilitation
2015					nd ditchline rehabilitation
2016					nd ditchline rehabilitation
2017 2018					and ditchline rehabilitation
2019					and ditchline rehabilitation and ditchline rehabilitation
Total	\$190,000	Driveway Sto	uu biba rebi	aceilleill a	III CILLINITE I SI MONICEROIT
>2019		Driveway sto	rm pipe real	acement a	and ditchline rehabilitation
	Source(s) Operation	ig Cost(s)	Staffine	Levels	Revenues Generated
		so	(\$0
300111770	Origin of Project	-		-	ange from Previous CIP
	City Council				No Change
	Board/Commission			TO TO	Increase in Amount
	Citizen/Civic Associa	tion	3)		Decrease in Amount
<u> </u>	Staff				New Project
Ļ	Other:				Other:
User/Con	rdinating Departments	: Public Wo	rice Street	Division	

PROJECT INF Project Name: MUNICIPAL SEPARATE STORM SE Comprehensive Plan Reference: ENV 2. Comprehensive Public Service and Facilities Economy	WER SYSTEM (MS4) I (p. 34), ENV 4.1 (p. 35), PFS 2.2 (p. 84)
Comprehensive Plan Reference: ENV 2. Comprehensive Public Service and Facilities	l (p. 34), ENV 4.1 (p. 35), PFS 2.2 (p. 84)
☐ Public Service and Facilities	lan Element
☐ Public Service and Facilities	
	☑ Environment
	☐ Housing
☑ Community Appearance	Transportation
☐ Land Use	Other City Plan/Policy
Statement of Need: Picture	
This project is required to comply with the new MS4 permit requirements. The new permit has new significant milestones the City has to meet each year of the 5 year permit term. 12824 Month Milestones: Other TMDL action plans, Public Outreach, Illicit discharge procedures, SWPPP locations, Nutrient Management Plan locations, training programs, MS4 annual permit 36 Month: Additional TMDLs and MS4 annual permit 48 Month: Outfall Map and MS4 annual permit 60 month: Nutrient Management Plan implementation, SWPPP implementation and MS4 annual permit	
Year Project Cost	Purpose of Expenditure
Adopted 2014	
2015 \$85,000 12 and 24 month m	
2016 25,000 36 month milestone	95
2017 35,000 48 month milestone	-
2018 75,000 60 month milestone	15
2019	
Total \$220,000	THE COURT OF THE PARTY OF THE P
>2019	
	ing Levels Revenues Generated
Stormwater Fund \$0	0 \$0
Origin of Project	Change from Previous CIP
City Council	No Change
Board/Commission	Increase in Amount Decrease in Amount
	TO TO THE PROPERTY OF THE PROP
Citizen/Civic Association	
Staff Other:	New Project Other:

		PROJEC	CT INFOR	MATION			
Project Na	ame: CHESAPEAKE E	AY THOL	ACTION PLAN				
	ensive Plan Reference		ENV-4.1(pg35); PFS-2.2(pg84)				
		Compret	nensive Plan Element				
П	Public Service and F			7	Environment		
	Economy			П	Housing		
	Community Appeara	TC6			Transportation		
	Land Use	IICC			Other City Plan/Policy		
The state of the s	t of Need:		Distress		Ottiel City Plateroncy		
This projet month mile year Munic System (M Total Maxiplan is req 1,2015.This Chesapeal concern (Freductions meet the p City will ac Chesapeal City hit a 5 necessary by 2018, 4 necessary by 2023, a necessary	tor Need: ct is needed to comply astone requirement of the cipal Separate Storm S (IS4) permit. A Chesape imum Daily Load (TMD uired to be completed by a ction plan outlines whe Bay TMDL 5% pollured are for the City necessive permit requirements, and the chem by 2018. The Bay TMDL requires to meet the permit required to meet the permit required 100% pollutant reduction to meet the permit requirement opportunities will be set to meet the permit opportunities will be set to meet the permit opportunities will be set to meet	he new 5 ewer wake Bay L) action perfore July what the tant of d eary to d how the he that the goal uirements goal uirements uirements	Picture				
Year	Project Cost		P	urpose of	Expenditure		
Adopted 2014							
2015			one Action pl				
2016					gn and Construction		
2017					gn and Construction		
2018					gn and Construction		
2019			tone Action I	Plan			
Total	TBD						
>2019							
Funding		g Cost(s)	Staffing	Levels	Revenues Generated		
Gran		0	., (\$0		
	Origin of Project				ange from Previous CIP		
	City Council		7		No Change		
	Board/Commission		100		Increase in Amount		
	Citizen/Civic Associa	ition	W 11 1		Decrease in Amount		
V.	Staff			1	New Project		
	Other:				Other:		
User/Cool	rdinating Department	s: Public V	Vorks, Adm	nistration	& Engineering		

			PROJEC	T INFOR	MATION	
Project N	ame: BMP/S	WM INSPI	CTION			
Compreh	ensive Plan	Reference	:	ENV-2.1 (p	. 34); PFS	3-2.2 (p. 84)
			Compreh	ensive Plan		
	Public Ser	vice and F	acilities		4	Environment
	Economy		~			Housing
4	Communit	у Арреага	nce	2		Transportation
	Land Use					Other City Plan/Policy
Statemen	t of Need:			Picture:		
Water Mai The State these facil Discharge Phase II-N System (N owns and City and wadditional numbers to	at Management (B requires and ities under the Elimination Municipal Sep (S4) annually maintains 19 will inspect ap private facility o increase en Department (42,590)*	MP/SWM) nual inspect ne Virginia I System (Vi- parate Store y. The City BMPs thre proximatel ties. We ex- very year. (systems, ion of Pollution PDES) and m Sewer currently bughout the y 125 pect these 2014			
Year	Projec	t Cost			urnose of	Expenditure
Adopted	110,00					
2014		\$25,000	Inspection	of all BMP f	acilities*(\$	42,590 grant)
2015				of all BMP f		
2016				of all BMP f		
2017				of all BMP f		
2018			_	of all BMP f		
2019						
Total		\$320,000				
>2019			,			
Funding	Source(s)	Operatin	g Cost(s)	Staffing	Levels	Revenues Generated
	#SWF		0)	\$0
Gian	DOTTE					
Gran						hange from Previous CIP
Gian		Project			- U	hange from Previous CIP No Change
Giali	Origin of	Project				No Change
	Origin of City Counc Board/Con	Project II Inmission	tion			No Change Increase in Amount
	Origin of City Council Board/Con Citizen/Civ	Project II Inmission	tion			No Change Increase in Amount Decrease in Amount
	Origin of City Counc Board/Con	Project II Inmission	tion			No Change Increase in Amount

	·	PROJEC	T INFOR	MATION	
Project Na	ame: BMP FOR PRO	PERTY YARD)		
	ensive Plan Referenc			. 34): ENV	'-2.3 (p. 34); PFS-2.2 (p. 84)
			ensive Plar		(p: -v), o (p: o v)
	Public Service and			4	Environment
	Economy				Housing
 -	Community Appear	ance		 	Transportation
- 	Land Use	21100	. 63	┝╼	Other City Plan/Policy
Statement			Picture:		Other City Flant Folicy
construction (BMP) for the Yard is in instrumently, the Surface or from truck areas. This future required for stormword the new Mindevelopian pollutant rules in the storage yas satt/sand significant substands.	ct provides for the design of Best Managemer the Property Yard. The need of a treatment fair runoff before it enters there is no treatment fair roof stormwater runoff washing and open mass project will allow the tirements of our new hater management. Its permit requires the not program to prevent unoff from municipal or point the discharge of pollubors, maintenance torage locations, snow waste transfer station	at Practice Property Cility to treat The effluent Terial storage City to meet TS4 permit City to Tand reduce Details from The control or The treat TS4 permit TS4 permit TS4 permit TS4 permit TS5 permit TS5 permit TS5 permit TS6 permit TS6 permit TS6 permit TS7 permit TS8 per			
Year	Project Cost		P	urpose of	Expenditure
Adopted		70 816			
2014		Engineering			
2015	200,000	Construction	n of stormwa	ater treatme	ent facility
2016					
2017					
2018					
2019					
Total	\$200,000				
>2019	4200,000				
	Source(s) Operati	ng Cost(s)	Staffing	Levels	Revenues Generated
	ster Fund	\$0	- Carring		\$0
Juliliwa	Origin of Project	ΨV		-	nange from Previous CIP
	City Council			7	No Change
	Board/Commission		12 15 111		Increase in Amount
	Citizen/Civic Associ	ation	1500	1	Decrease in Amount
4	Staff		town or		New Project
	Other:				Other:
User/Coor	dinating Department	s: Public W	orks, Admi	nistration	& Engineering

		•	PROJEC	T INFOR	MATION	
Project Na	me: ASSE	MBLY DRI				
	ensive Plan					1.5 (p. 103); T-7.3.2 (p. 134)
-	nsive Plan		•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,	(January)
7		vice and F	acilities	3	v	Environment
一市	Economy	1100	B-0.111		一市	Housing
 		у Арреага	nce		一市	Transportation
┝╌┼	Land Use) represent		1	Ħ	Other City Plan/Policy
Statement				Picture:		william with the same of
	t provides f	or the desig	ın and	Linter m.		
construction	on of a drain	age solution	n to		3.18	
alleviate flo	ooding on pa	roperties at	the	1	1000	
	oundary of t		•	Balan .	1000	The state of the s
	tely 20 year			(Sec.)	-	A 12 CO 12 C
	berm and d			25.00	1000	E 2 7 1 M 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	of about 25			00(2)	RESEARCH IN	
	These repa			MALS.	STAR I	A COLUMN TO SERVICE AND A SERVICE AND ASSESSMENT OF THE SERVICE AN
	as designe			1000	17 6 18	TO BE THE STATE OF
	bly are requ			7-A18		
	aintenance : ge swale to			100	E 4 1	10 Miles
	ge swale to condition. Ci				XXX II	常教,就是
	in house. N			240	200	
	may need			67	W. 16	AND STREET, ST. T.
	-			Becc		
						E E E
				1	1.000	
Year	Prolec	t Cost		F	urpose of	Expenditure
Adopted	,				M.p	
2014						
2015						
2016		\$50,000	Design of o	drainage sol	ution and a	acquisition of easements
2017			,	on of draina		
2018						
2019						
Total		\$200,000				
>2019						
Funding	Source(s)	Operatin	g Cost(s)	Staffing	Levels	Revenues Generated
	nter Fund		0)	\$0
	Origin o	f Project			C	hange from Previous CIP
	City Coun			1		No Change
	Board/Cor				7	Increase in Amount
		ric Associa	tion			Decrease in Amount
\overline{U}	Staff					New Project
	Other:					Other:
User/Coor	dinating D	epartments	: Public V	Vorks, Adm	inistration	1 & Engineering

			PROJE	CT INFOR	RMATION	
Project Na	me: OLD	TOWN DRA	•			ROVEMENTS
_	nsive Plan				. 84); CA-1	
	nsive Plan			**		
1	,	vice and F	acilitles	100	J	Environment
	Economy					Housing
<u> </u>		у Арреага	nce			Transportation
H	Land Use	, , , ,	****		T T	Other City Plan/Policy
Statement	of Need:			Picture:		
This project construction improvements of the storm drain deteriorate. The current downtown this project water main funded by the construction of the storm of th	at provides for of storm of st	trainage on Street and rugated me in is severely ed of replace causing busing minor rate imultant work pre Department	I University stal pipe y sement. sinesses sinstorms. eously with viously t. It will	The same of the sa		
Year	Broles	t Cost			Burnosa of	Expenditure
Adopted	Projec	i Cost			rui pose oi	Expenditure
2014		\$100,000	Main Stree	t drainaga i	mnmvemer	nts final design
2015						fain St. water main improvements
2016			00,100000			
2017						
2018						
2019						
Total		\$600,000				
>2019		, ,				
Funding	Source(s)	Operatin	g Cost(s)	Staffino	Leveis	Revenues Generated
	ter Fund		0		0	\$0
	Origin o	f Project				hange from Previous CIP
Ø	City Coun					No Change
	Board/Cor				H	Increase in Amount
<u> </u>	\vdash	/ic Associa	ition		<u> </u>	Decrease in Amount
<u> </u>	Staff				H	New Project
	Other:			A. Carrie	n	Other:
User/Coor		epartments	: Public V	Vorks, Adm	inistration	& Engineering

			LKOJEC	T INFOR	MATION	
Project N	ame: PARK	ROAD AND	FERN ST	REET DRA	INAGE &	ROAD IMPROVEMENTS
Compreh	ensive Plan	Reference:		PFS 2.2 (p.	84); CA-	1.5 (p. 103); T-7.3.2 (p. 134)
			Comprehe	ensive Plan	Element	
V	Public Ser	vice and Fac	cilities		v v	Environment
	Economy					Housing
•	Communit	y Appearance	ce		7	Transportation
	Land Use					Other City Plan/Policy
Statemen	t of Need:			Picture:		
Street. Res been comp City right-o homes. Th these floor	curb inlets on sidents in this plaining about of-way causin his project pro- ding problem uested for this	s neighborho it stormwater ng flooding in ovides a solu s. State fund	ood have r from their rtion to		********	
У аяг	Project	t Cost		Đị.	ITDOSA O	Expenditure
Year Adopted	Projec	t Cost		Pu	irpose of	' Expenditure
Adopted		t Cost		Pu	rpose of	f Expenditure
Adopted 2014		t Cost		Pu	irpose of	f Expenditure
Adopted 2014 2015		t Cost		Pi	rpose of	[†] Expenditure
Adopted 2014			Construction		rpose of	Expenditure
Adopted 2014 2015 2016		t Cost	Construction		irpose of	f Expenditure
Adopted 2014 2015 2016 2017			Construction		irpose of	f Expenditure
Adopted 2014 2015 2016 2017 2018			Construction		irpose of	f Expenditure
Adopted 2014 2015 2016 2017 2018 2019		\$150,000 C	Construction		irpose of	l'Expenditure
Adopted 2014 2015 2016 2017 2018 2019 Total >2019		\$150,000 C		n		Expenditure Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding		\$150,000 C				
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	Source(s)	\$150,000 C \$150,000 Operating \$0		n Staffing	Levels	Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	Source(s)	\$150,000 C \$150,000 Operating \$0 Project		n Staffing	Levels	Revenues Generated \$0 hange from Previous CIP
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	Source(s) ater Fund Origin of	\$150,000 C \$150,000 Operating \$0 'Project		n Staffing	Levels	Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	Source(s) ater Fund Origin of City Counc	\$150,000 C \$150,000 Operating \$0 'Project	Cost(s)	n Staffing	Levels	Revenues Generated \$0 hange from Previous CIP No Change
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	Source(s) ater Fund Origin of City Counc	\$150,000 C \$150,000 Operating \$0 Project	Cost(s)	n Staffing	Levels	Revenues Generated \$0 hange from Previous CIP No Change Increase in Amount

			PROJEC	TINFOR	MATION	
Project Na	ame: McLE	AN AVENU	E DRAINAG	E IMPROV	EMENTS	
Compreh	ensive Plan	Reference	:	PFS 2.2 (p	. 84); CA-	1.5 (p. 103); T-7.3.2 (p. 134)
Comprehe	ensive Plan	Element				
7		rvice and F	acilities		J	Environment
	Economy					Housing
7		ty Appeara	nce			Transportation
	Land Use					Other City Plan/Policy
Statemen	t of Need:			Picture:		
construction inch storm sewer inlet needed to right-of-wa	ct provides f on of approx drainage pi is. These im direct storm by from ente and 3523 i	imately 700 pes and 2 s provement water from ring the pro	feet of 18 storm s are i the city perties at		ъij.	444
Year	Broles	t Cont		-		Euronaliture
Adopted	Filipet	t Cost			ur pose ot	Expenditure
2014						
2015						
2016	 	\$50,000	Design drai	naga soluti	on for Orel	104 0 14 1
		,		go ooluu		nard St. & McLean Ave.
		100.000	Construction	n of draina		hard St. & McLean Ave.
2017		100,000	Constructio	n of draina		for Orchard St. & Mclean Ave.
2017 2018		100,000	Constructio	n of draina		
2017			Constructio	n of draina		
2017 2018 2019 Total		100,000 \$150,000	Constructio	n of draina		
2017 2018 2019 Total >2019	Source(s)	\$150,000			ge solution	for Orchard St. & Mclean Ave.
2017 2018 2019 Total >2019 Funding	Source(s)	\$150,000 Operatin	g Cost(s)	n of draina	ge solution	for Orchard St. & Mclean Ave. Revenues Generated
2017 2018 2019 Total >2019 Funding	ater Fund	\$150,000 Operatin		Staffing	ge solution	for Orchard St. & Mclean Ave. Revenues Generated \$0
2017 2018 2019 Total >2019 Funding	ater Fund Origin o	\$150,000 Operatin \$ f Project	g Cost(s)	Staffing	ge solution	Revenues Generated \$0 hange from Previous CIP
2017 2018 2019 Total >2019 Funding	Origin o	\$150,000 Operatin \$ f Project	g Cost(s)	Staffing	ge solution	Revenues Generated \$0 hange from Previous CIP No Change
2017 2018 2019 Total >2019 Funding Stormwa	Origin o City Coun Board/Cor	\$150,000 Operatin \$ f Project cill nmission	g Cost(s)	Staffing	ge solution	Revenues Generated \$0 hange from Previous CIP No Change Increase in Amount
2017 2018 2019 Total >2019 Funding	Origin o City Cound Board/Cor Citizen/Civ	\$150,000 Operatin \$ f Project	g Cost(s)	Staffing	Levels	Revenues Generated \$0 hange from Previous CIP No Change increase in Amount Decrease in Amount
2017 2018 2019 Total >2019 Funding Stormwa	Origin o City Coun Board/Cor	\$150,000 Operatin \$ f Project cill nmission	g Cost(s)	Staffing	ge solution	Revenues Generated \$0 hange from Previous CIP No Change Increase in Amount

			PROJEC	CT INFOR	MATION	
	ame: CEDA	R AVENUE	DRAINAC	E IMPROV	EMENTS	
Соп	prehensive					1.5 (p. 103)
				ensive Pla		
1	Public Ser	vice and F			U	Environment
	Economy	Ties alla I	44111455			Housing
		y Appeara	nce		Transportation	
-	Land Use	y Appeara	iice		-	Other City Plan/Policy
Ctataman	nt of Need:			Picture:		Other City Flaturolicy
heavy rain the aspha Avenue al properties Several C have visite about the Funding is construction	side of Ceda in storms, stored the curb on the ind floods the it to the south tity residents ed the PW O flooding fron is being reque on of drainag his flooding p	rm water over a south side basements on Center from Center ffice to corn on Cedar Avo ested for de ge improver	rerflows of Cedar s of Several Street or Street applain snue. sign and	NY.		
						200
Year		t Cost		F	urpose of	/ Expenditure
Adopted		t Cost		F	rurpose of	/ Expenditure
Adopted 2014						/ Expenditure
Adopted 2014 2015		\$50,000		sinage impr	ovements	
Adopted 2014 2015 2016		\$50,000			ovements	
2014 2015 2016 2017		\$50,000		sinage impr	ovements	
2014 2015 2016 2017 2018		\$50,000		sinage impr	ovements	
Adopted 2014 2015 2016 2017 2018 2019		\$50,000 100,000	Construction	sinage impr	ovements	
Adopted 2014 2015 2016 2017 2018 2019 Total		\$50,000 100,000 \$150,000	Construction	ainage impro	ovements age improve	
Adopted 2014 2015 2016 2017 2018 2019 Total >2019		\$50,000 100,000 \$150,000 \$150,000	Construction Const	ainage impro on of Draina	ovements ge improve	
Adopted 2014 2015 2016 2017 2018 2019 Total >2019		\$50,000 100,000 \$150,000 \$150,000	Construction	ainage impro on of Draina	ovements age improve	
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding		\$50,000 100,000 \$150,000 \$150,000 Operatin	Construction Const	ainage impro on of Draina ood drainag Staffing	ovements ge improve	ements
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding	Source(s)	\$50,000 100,000 \$150,000 \$150,000 Operatin	Neighborh	ainage impro on of Draina ood drainag Staffing	e projects	ements Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Stormw	Source(s)	\$50,000 100,000 \$150,000 \$150,000 Operatin \$	Neighborh	ainage impro on of Draina ood drainag Staffing	e projects	Revenues Generated
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Stormw	Source(s) rater Fund Origin o	\$50,000 100,000 \$150,000 \$150,000 Operatin \$ f Project	Neighborh	ainage impro on of Draina ood drainag Staffing	e projects	Revenues Generated \$0 hange from Previous CIP
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Stormw	Source(s) rater Fund Origin o	\$50,000 100,000 \$150,000 \$150,000 Operatin \$ f Project cil	Neighborh g Cost(s)	ainage impro on of Draina ood drainag Staffing	e projects	Revenues Generated \$0 hange from Previous CIP No Change
Adopted 2014 2015 2016 2017 2018 2019 Total >2019 Funding Stormw	Source(s) rater Fund Origin o City Cound Board/Cor	\$50,000 100,000 \$150,000 \$150,000 Operatin \$ f Project cil	Neighborh g Cost(s)	ainage impro on of Draina ood drainag Staffing	e projects Levels	Revenues Generated \$0 hange from Previous CIP No Change Increase in Amount
2014 2015 2016 2017 2018 2019 Total >2019 Funding Stormw	Source(s) vater Fund Origin o City Counce Board/Cor Citizen/Civ	\$50,000 100,000 \$150,000 \$150,000 Operatin \$ f Project cil	Neighborh g Cost(s)	ainage impro on of Draina ood drainag Staffing	e projects	Revenues Generated \$0 hange from Previous CIP No Change Increase in Amount Decrease in Amount

			CT INFOR		
Project Name: F	ROBERTS ROA	D & FORES	ST AVENUE	DRAINAC	SE IMPROVEMENTS
Compreher	nsive Plan Refe	rence:	PFS-2.2 (), 84); CA-	1.5 (p. 103)
		Compreh	ensive Pla	n Element	
Public	c Service and F	acilities			Environment
☐ Econo			300		Housing
	nunity Appeara	nce	N. For	-	Transportation
Land		1100			Other City Plan/Policy
Statement of Ne			Picture:		Other Oity I later oney
This project provi		nn and	Picture.		
construction of dr				-	
intersection of Ro					
Avenue, During h			100		A CONTRACTOR OF THE PARTY OF TH
Roberts Road floo				-	
crawl space of the					O Company of the last of the l
Roberts Road, Fu			-		The second of the second
to design drainag		to alleviate		FERM	
the flooding at this	s location.				
			100		The second secon
			23,000		300 S S S S S S S S S S S S S S S S S S
			1.233		HORE STATE OF THE PARTY OF THE
				T-HIN	THE RESERVE OF THE PARTY OF THE
Year P	roject Cost		F	urpose of	Expenditure
Adopted					
2014					
2015	\$50,000	Design Dra	inage impr	overnents	
2016		Construction			ements
2017		ah		18.	
2018					
2019					
Total	\$150,000				
>2019		Neighborh	ood drainad	e projects	
Funding Source		g Cost(s)		Levels	Payantiae Concented
					Revenues Generated
Stormwater Fu		50		0	\$0
l _ Orig	gin of Project				hange from Previous CIP
			1000	L;;	No Change
	ouncil				
Board	I/Commission				Increase in Amount
Board Citize		ition			Increase in Amount Decrease in Amount
Board	I/Commission	ition			
Board Citize	I/Commission n/Civic Associa	ition			Decrease in Amount

PROJECT INFORMATION Project Name: FLOOD STUDY - FOXCROFT COLONY & MOSBY WOODS CONDOS Comprehensive Plan Reference: PFS-2.2 (p. 84); T-7.3.2 (p. 134) **Comprehensive Plan Element** Public Service and Facilities Environment Economy Housing Transportation Community Appearance Other City Plan/Policy Land Use Statement of Need: Picture: This project provides for the final design of a solution to help alleviate the flooding problems at Foxcroft Colony and Mosby Woods Condos. Based on the hydraulic study and design concepts, several alternatives where reviewed. An alternative is chosen through public outreach and City council, a preliminary design will be preformed followed by a final design plan. Depending on the final design alternative chosen, the future construction costs will vary significantly. Grant opportunities will be explored. Year Project Cost Purpose of Expenditure Adopted 2014 \$140,000 Alternative selection and preliminary design 150,000 Final design of selected alternative(s) 2015 2016 2017 2018 2019 Total \$150,000 >2019 Funding Source(s) | Operating Cost(s) Staffing Levels Revenues Generated Grant/SWF Change from Previous CIP Origin of Project City Council No Change Board/Commission 7 increase in Amount Citizen/Civic Association Decrease in Amount New Project J Staff Other: Other:

User/Coordinating Departments: Public Works, Administration & Engineering

			PROJEC	CT INFOR	MATION	
Project Na	me: STRI	AM EVAL	JATION AI	ND RESTOR	RATION	
	prehensive					-2.2 (p. 84); T-7.3.3 (p. 134)
				ensive Pia	•	
-	Public Ser	vice and F		CITATIVE FIG		Environment
	Economy	vice dila i	acinacs			Housing
┝╌╬┈╴		Annanya	200		-	Transportation
 	Communit	y Appeara	lice		7	<u> </u>
	Land Use					Other City Plan/Policy
Statement				Picture:		
stream res behind Dai (approxima Accotink C and Prioriti Chesapeal (TMDL) co restoration Proposed a need: Addi downstreal beyond Da Country Cl Springman ** The money of \$ construction	et provides fi toration proj niels Run El ately 750 line reek Steam ization Plan, ke Bay Tota impliance, a based on n Stream Resi tional section from Farr uniels Run E un Dr., Dale City is pursu izas, 2000 tov en of stream vater Local	ects for Da ementary S ear feet). Po Stability As and for fut I Maximum dditional str eed will be toration List ens of Danie croft Pond of lem. to Arm ake Terrac Lestina Par uing matchin wards desig restoration	niels Run school er the sessment ure Daily Load ream done, t based on els Run and ey Navy e, k ng grant en and through			
Year	Broise	t Cost	ī	<u> </u>	turnoce of	Expenditure
Adopted	rojec	, cost			arpose of	maps (1911415
2014		\$70,000	Field surve	av and dosio	in concent	- Daniels Run
2015						Ph 1 (Grant application)**
2016				y and desig		
2017				storation cor		
2018	 			y and desig		
2019				storation cor		
Total		\$1,540,000				
>2019	<u> </u>	+ · · · · · · · · · · · · · · ·				
	Source(s)	Operatin	g Cost(s)	Staffing	Levels	Revenues Generated
	VSWF		9 0 031(3)	1)	\$0
Gran		f Project				hange from Previous CIP
	City Counc					No Change
 	Board/Cor				J	Increase in Amount
 	Citizen/Civ		tion			Decrease in Amount
- - -		nu ASSUCIO	LUUII	102 11	┝╫╌	
	Staff Other:					New Project Other:
Llagriff and			a Parkita II	laska Adm		<u> </u>
USEI/COOI	amating De	epartments	s: Public V	vorks, Adm	imistration	a & Engineering

			LKOJE	- I INFU	OITAMS	Y .
Project Na	ame: FAIR!	AX BLVD.	& OAK ST.	STORM D	RAIN MAI	NTENANCE
	ensive Pian					1.5 (p. 103); T-7.3.2 (p. 134)
				ensive Pla		
1	Public Ser	vice and F			7	Environment
	Economy	TIGG WING I	uomues			Housing
- F	Communit	v Annaara	nce	100	T I	Transportation
-	Land Use	y Appeara	HICE		H	Other City Plan/Policy
<u></u>	t of Need:			Picture:		Other City Flaturolicy
pipe, which into a simil McDonald: offset by a the pipe when comfollows it. Tor sink hold The City butter, with a comfollows it.	as \$850,000 a required	airfax Blvd a runs betwe and Paul V The lower s under Fair Is at a lower ne pipe sec ause roadw in Revenu City match	and ties sen the //I HS, is section of fax Blvd. is ar elevation tion that //ay failure se Sharing of		cd	
repaire the Fairfax Bo the McDon was alloca remaining	These fund e section of to sulevard and naids and Pa ated in FY14 funds are be for construct	he pipe that continues I aul VI HS. S for design s sing allocat	t crosses between \$100,000 so the	15		
repaire the Fairfax Boothe McDon was alloca remaining and FY16	e section of to sulevard and naids and Pa ated in FY14 funds are be for construct	he pipe that continues I aul VI HS. S for design s sing allocation.	t crosses between \$100,000 so the	ار المراجع	Purnose	of Expenditure
repaire the Fairfax Bost the McDon was alloca remaining and FY16 to Year	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe that continues I aul VI HS. S for design s sing allocat	t crosses between \$100,000 so the	J.	Purpose o	of Expenditure
repaire the Fairfax Bor the McDon was alloca remaining and FY16 Year Adopted	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe that continues I will VI HS. Story the continues I will VI HS. Story the continues I have been seen as the continues to the continues I have been seen as the continues	t crosses between \$100,000 so the ed in FY15	TOT	Purpose o	of Expenditure
repaire the Fairfax Boothe McDon was alloca remaining and FY16: Year Adopted 2014	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe the continues I aul VI HS. 5 for design sing allocation.	t crosses between \$100,000 so the red in FY15	Design		
repaire the Fairfax Bothe McDon was alloca remaining and FY16: Year Adopted 2014	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe the continues I aul VI HS. 5 for design sing allocation. at Cost \$100,000	t crosses between \$100,000 so the ed in FY15 Engineering Phase 1 Re	Design place Storr	n Pipes U	nder Fairfax Boulevard
repaire the Fairfax Bothe McDon was alloca remaining and FY16 Year Adopted 2014 2015	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe the continues I aul VI HS. 5 for design sing allocation. at Cost \$100,000	t crosses between \$100,000 so the ed in FY15 Engineering Phase 1 Re	Design place Storr	n Pipes U	
repaire the Fairfax Bothe McDon was alloca remaining and FY16 to Year Adopted 2014 2015 2016 2017	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe the continues I aul VI HS. 5 for design sing allocation. at Cost \$100,000	t crosses between \$100,000 so the ed in FY15 Engineering Phase 1 Re	Design place Storr	n Pipes U	nder Fairfax Boulevard
repaire the Fairfax Botthe McDon was alloca remaining and FY16 to Year Adopted 2014 2015 2016 2017 2018	e section of to sulevard and halds and Pa ated in FY14 funds are be for construct Project	he pipe the continues I aul VI HS. 5 for design sing allocation. at Cost \$100,000	t crosses between \$100,000 so the ed in FY15 Engineering Phase 1 Re	Design place Storr	n Pipes U	nder Fairfax Boulevard
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			ADA IEC	T INFORM	ATION	
	WING S	-				
Project N	ame: IMPRO	VEMENTS	ALONG BU	RKE STATIO	N ROA	U
Com	prehensive	Plan Refer	ence:	CA-4.1 (p. 10	6); T-7.	2.1 (p. 133)
			Comprehe	ensive Plan E	lement	
	Public Ser	vice and Fa	cilities	1		Environment
	Economy		17			Housing
	Communit	v Appearar	ce	-	1	Transportation
	Land Use			1		Other City Plan/Policy
Statemen	t of Need:			Picture:		
constructic sewer pipe the ditch a Road from Phase 1 or constructic Road and constructic Road. The Revenue S total project match is \$ appropriat state/\$62, appropriat	ct provides for of curb and also a and also a along the west Main Street of this project on from Main phase 2 will in phase 2 will in phase 2 will in a compart of \$850,000 and to this proson local). This in adds the and required local in the control of the cont	d gutter with sidewalk to side of Bu to Mosby F will include Street to Sinclude designton Road ceived \$325 for this pro D). The rec FY 14, \$12 ject (\$62,50 he FY 15 remaining F	n storm o eliminate rke Station toad. design and toughton ign and to Mosby i,000 in oject (for a quired local 5,000 was			
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2015				n (\$262 500 C	ity Fun	ds & \$262,500 State)
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2018		- 1				
2019	1					4-40
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	City Counc	il			11	No Change
-	Board/Con				Ti-	Increase in Amount
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	CitizaniCha		tion		П	
V	Citizen/Civ		tion		H	Decrease in Amount
7	Citizen/Civ Staff Other:		tion		H	

Project Na				T INFOR		
-	ame: SCOT					4 E I - 400' T 7 0 0 (- 404)
compren	ensive Plan	Reference	The state of the s			1.5 (p. 103); T-7.3.2 (p. 134)
-	15.40.5			nsive Plan	-	Environment
2	Public Ser	vice and ra	cilities			
	Economy		-			Housing
-		y Appearar	nce			Transportation
	Land Use			-		Other City Plan/Policy
	t of Need: ct provides fo			Picture:		
construction gutter, 550 and 4 ston These faci the city rig properties	on of about 3) feet of 15 ir in sewer inle ilities will pre ht-of-way fro at 10712 an s are being r	00 feet of c nch storm so ts on Scott vent storm m entering d 10710 Sc	urb and ewer pipes Drive. water from the ott Street.			
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Year Adopted	Projec	t Cost		Pi	urpose of	f Expenditure
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PROJ								
PROJ				PROJEC	T INFORM	MATION		
	ĒĊ	T NAMÉ: NO	RTHFAX S	TORM DRAIN	NAGE & INT	ERSECTI	ON IMPROVEMENTS	
					ENV-2.1 (o. 34); PFS	-2.2 (p. 84); CA-1.5 (p. 103); T-	
	Co	mprehensiv	e Plan Refe	erence:	7.3.2 (p. 1	34)		
		_		Comprehe	nsive Plan	Element	_	
		Public Ser	vice and F	acilities	7		Environment	
Comprehensive Plan Reference: Comprehensive Plan Reference: Public Service and Facilities Economy Community Appearance Land Use Statement of Need: This project will make intersection and stormwater improvements to the intersection of Routes 50 and 123. The estimated cost of the project is \$21,000,000. In FY 14 the City received \$5,000,000 funding through the NVT (70% regional funding). This money was not allocated in the adopted FY 14 budget and is shown here as FY 15 funding. In addition, in FY 15 the City has applied for \$5,000,000 in Revenue Sharing funds (using the NVTA funding as the local match). The \$10,000,000 total of NVTA (local) and Revenue Sharing is			3		Housing			
		Communit	у Арреага	nce		4	Transportation	
		Land Use			·		Other City Plan/Policy	
This p storm Route project receiv (70% allocal shown FY 15 Rever fundin total of shown project and w	roje wat s 56 it is ed regi ted the the g a f N' n as t m ill b	ect will make ar improvement and 123. The \$21,000,000 for ional funding; in the adopte are as FY 15 for ional funding the ional funding the action and ional funding the action at the focal makes the local makes in the loca	ents to the interest of the in	ntersection of d cost of the he City igh the NVTA ey was not diget and is addition, in 200,000 in NVTA \$10,000,000 e Sharing is ow. The ig in FY 16	Picture:			
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User/Coordinating Departments: Public Works, Transportation, Planning

Public Works Performance Measures FY13-14

ADMINISTRATION AND ENGINEERING

Approximately 50 capital projects administered

COUNTY WASTEWATER TREATMENT CONTRACT

Approximately 3.3 million gallons daily (rolling average) flow of wastewater treated

CUE BUS

- 12 buses in fleet providing service
- Approximately 31 clients participating in the City Wheels program
- Approximately 33,792 hours in revenue
- Approximately 900,000 rides provided

FACILITIES MAINTENANCE

City buildings maintenance of approximately 291,703 square feet

HIGHWAYS - ASPHALT

- Approximately 1,200 man hours in assisting other departments/divisions
- Approximately 1,200 man hours in infrastructure projects
- Approximately 1,800 tons asphalt in street repairs
- Approximately 2,000 man hours in paving oversight
- · Approximately 6,940 man hours in street preventive maintenance
- Bridge deck patching on Fairfax Blvd west of Draper Dr
- CIP crack sealing oversight
- CIP paving oversight
- Daily illegal signage removal
- Depression repair on University Dr at MainSt
- Full depth asphalt restoration at City of Fairfax Property Yard
- Full depth asphalt restoration on Blackthorn Ct
- Full depth asphalt restoration on Fairfax Blvd at Draper Dr
- Full depth asphalt restoration on Fairfax Blvd service road
- Full depth asphalt restoration on Ford Rd
- Full depth asphalt restoration on Jermantown Rd
- Full depth asphalt restoration on Joyce Dr
- Full depth asphalt restoration on Pinehurst Ave
- Full depth asphalt restoration on Spring Lake Ter
- Full depth asphalt restoration on University Dr.
- Guardrail repair on University Dr at Kenmore
- Hurricane Sandy cleanup
- Sinkhole repair on Rte 123 at Sager Ave
- Sinkhole repair on University Dr at Jean St
- Speed hump installation at Draper Dr Park
- Surface repairs on Burke Station Rd
- Surface repairs on Fairfax Blvd at Bevan Dr

Surface repairs on Main St at Maple Ave

HIGHWAYS - CONCRETE

- Approximately 1,500 man hours in assisting other departments/divisions
- Approximately 1,800 man hours in infrastructure projects
- Approximately 2,200 man hours in Downtown brick sidewalk repairs
- Approximately 2,800 man hours in illegal ROW signage removal
- Approximately 250 yards of concrete repairs
- Approximately 3,040 man hours in concrete preventive maintenance
- Brick repairs on University Dr at North St
- Brick replacement on Old Lee Hwy at North St
- Brick replacement on Sager Ave at East St
- CIP concrete and brick repair oversight
- City Hall concrete slab installation
- Curb and apron rehabilitation on Fairchester Dr.
- Curb section repair on Parklane Rd
- Graffiti removal at 6 locations
- Historical marker installation at Moore St
- Hurricane Irene preparation and cleanup
- Hurricane Lee preparation and cleanup
- Illegal signage removal exceeding 2,600 signs
- Sidewalk and curb replacement on Pickett Rd at Mathy Dr
- Sidewalk section repair on Old Lee Hwy at City of Fairfax Regional Library
- · Sidewalk section replacement at end of Ranger Rd
- Sidewalk, driveway, curb and gutter section replacement on Fern St
- Snow equipment salt brine enclosure construction
- Wooden barriers construction at Pickett Rd tunnel

REFUSE COLLECTION

- Approximately 6,600 homes served
- Citizen responses monitoring
- · Refuse collection for City of Fairfax single family homes and townhouses
- Residential and commercial recycling programs participation through education and community involvement
- Workload monitoring

SIGNS, SIGNALS, LIGHTING

- Approximately 1,800 crew hours in pavement markings
- Approximately 1,860 crew hours in preventive maintenance
- Approximately 2,440 crew hours in sign maintenance

SNOW AND ICE CONTROL

- Approximately 6-20 inches of snowfall
- · Approximately 100% continual treatment of main roads during storms
- Approximately 300 man hours in clearing snow/ice from sidewalks
- Approximately 4,000 man hours in snow/ice operations

- Immediate snow removal
- Immediate treatment of roads
- Potential snow/ice storms monitoring
- Potential snow/ice storms pre-treatment on primary roadways

STORM DRAINAGE

- Approximately 1,000 man hours in assisting other departments/divisions
- Approximately 3,500 man hours in infrastructure projects
- Approximately 6,840 man hours in preventive maintenance
- CIP storm drainage oversight
- Comstock trail installation
- Damaged storm structures replacement at 20 locations
- Ditch line regrading on Burrows Ave
- Ditch line regrading on Scott Dr
- Driveway pipe replacement at 5 locations
- Outfall inspection and annual cleanup
- Outfall trees and blockages cleaning at 7 locations
- Pipe and ditch line installation on Scott Dr
- Pipe rehabilitation on Walnut St at Fairfax Blvd
- Sinkhole complaints addressing at 6 locations
- Storm headwall replacement on Barlow Rd
- Streamline blockages cleaning at 12 locations
- Structure repair on Park Rd at Fern St

STREETS RIGHT-OF-WAY AND PUBLIC GROUNDS

- Approximately 65 trees and shrubs planted
- Approximately 157 Downtown planters maintained
- · Approximately 334 gaslights maintained
- Approximately 5,650 man hours in mowing
- Approximately 8,800 hours in planting
- Approximately 9,820 flowers planted

WASTEWATER ADMINISTRATION AND ENGINEERING

Approximately 33 site plans reviewed

WASTEWATER LINE MAINTENANCE

 Approximately 90% of manhole inventory inspected, Approximately 90% of preventive maintenance activities achieved, Approximately 5,000 feet of pipes and related manholes rehabilitated

SAMPLE SWM/BMP LETTER



City of Fairfax

10455 Armstrong Street
Fairfax, Virginia 22030-3630

Date

Addresss

Re: Stormwater Management/Best Management Practice (Also referred to as SWM/BMP)

Dear Sir:

This letter is sent to advise you that the City may pursue enforcement action against the owner of the property located at ADDRESS, for failure to properly maintain the on-site Stormwater Management/Best Management Practice (SWM/BMP) system.

Virginia Administrative Code Sections 4VAC50-60-150 and 9 VAC 10-20-120 require annual inspection and certification that SWM/BMP facilities are properly maintained. Inspectors with the city's Department of Public Works are available to meet with property-owners or their representatives to make recommendations to ensure proper SWM/BMP function and reporting to satisfy the State Code requirements. Inasmuch as your facility is on private property, the City cannot perform the inspection for you, but can provide guidance and answer questions. For more information on inspection requirements please see the city's webpage at http://www.fairfaxva.gov/Environment/StormWaterMgmt.asp.

Enclosed is a copy of the SWM/BMP inspection report, found on the city website listed above, that needs to be filled out but a qualified inspector. Additionally attached, for your information, is a list of qualified inspectors used in the past. Failure to send in your inspection report within 30 days of receiving this letter, will result in a Notice of Violation (Notice) issuance to the site. Notice of Violation fines begin at \$200 and may increase to \$500. Typically, it is less costly to obtain the inspection than to pay any accrued penalty fine amounts.

SAMPLE SWM/BMP LETTER

If you have any questions about the rules for inspections or any additional questions please contact me at 703.273,3067 or Christina. Alexander@fairfaxva.gov .

Respectfully,

Christina Alexander Stornwater Resource Engineer, Public Works

Attachments Enclosure

Cc: Peter Millard

David Summers Michelle Coleman

SWM/BMP				
INSPECTION REPORT	Tr.	OR CITY U	1012 ANT 1	
LOCATION OF SWM/BMP:	ACCEPTED (
ADDRESS OF SWM/BMP:	QUESTIONS () REPAIRS () DATE: / /			
	REVIEWED BY		•	
OWNER OR MANAGEMENT CO.:	PHONE #	•		
ADDRESS:	111011011	•		
INSPECTION COMPANY: ADDRESS:	PHONE #	:		
ADDRESS:				
 				
INSPECTOR NAME (print):	PHONE#	•		
INSPECTOR SIGNATURE:	DATE#:	•		
TYPE OF BMP				
Bio-detention () Dry Pond () Wet Pond () Infiltration Trench				()
Storm Ceptor () Sand Filters () Green Roof () Filterra () Other, describe :	Vegeta	ted Swale	()	
Inspection Checklist		,		
Structural Integrity:		Yes	No	N/A
Does the facility show any signs of settling, cracking, bulging, misalignment, or any other sideterioration?	structural			
Do embankment, emergency spillways, side slope, or inlet/outlet structure show signs of e	xcessive	-		
erosion or stumping? Is the Intel and outlet pipe damaged or otherwise not functioning properly?				
Do impoundment and inlet areas show erosion, low spots, or lack of stabilization?		ļ		<u> </u>
Are trees or saplings present on the embankment?				
Are animal burrows present?				
Are contributing areas unstabilized with evidence of erosion?	- 170			-
Do grass areas require mowing and /or are dippings building up?				
		l)		
Working Conditions				
Are cartridge filters, sand filters, filterra boxes, and other filters clogged?		ŀ		
Provide date of last filter replacement. (/	1)			
Is water quality orifice, weir, grate, trash rack completely clear of debris and completely op Does the depth of sediment or other factors suggest a loss of storage volume?	en?			
Is there standing water in inappropriate areas, such as on filters or cartridges after a dry p	adod2			
Is there an accumulation of floating debris and/or trash?	BIIOG F			
W. Carrier and Car				
Other Inspection Items				
is there evidence of encroachments or improper use of impoundment areas?			-	
Do the fence gate or other safety device need repair?				
Is there excessive algae growth or has one type of vegetation taken over the facility?				
is there evidence of oil, grease, or other automotive fluids entering and clogging the facility				
In rain gardens, is there evidence of soil crosion, does mulch cover the entire area, is speciand types of plants still in place, or is there evidence of disease or plant stress from adequinuch watering? Is there evidence of fish kill?	eified number late or too			
13 mere evidence of ISBN KIN7		i		1

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Violation #



CITY OF FAIRFAX DEPARTMENT OF COMMUNITY **DEVELOPMENT & PLANNING** Zoning Enforcement Division 10455 Armstrong Street

Fairfax, Virginia 22030

703 385-7820

NOTICE OF VIOLATION AND PENALTY YOU ARE CHARGED WITH VIOLATING THE CITY OF FAIRPAX, VIRGINIA CITY CODE

-				1
Date o	f Violation	Day of Week	Time AM/PM	CERTIFICATION OF ISSUING AGENT
Locati				The undersigned states that he/she is an employee of the City of Fairfax Department of Community Development and Planning, the
Ordin	usee Section:			he/she personally observed or investigated the commission of the violation noted above and/or the violation was based upon a signe
Descri	ption of Violation: _			affidavit or other reliable evidence, and that on the date of notice, copy of this notice was:
Penalt	y: \$	-		O Hand delivered to:
_	Notice of Violation 1st Penalty		2nd Penalty	Mailed/posted a true copy of this notice to the last known ho or business address of the respondent or the respondent's agent.
0	31d/More Penalty			
				Name of Person or Business Served
	IF THE VIOLATE		RRECTED BY AL MONETARY	Address of Service
	PENALTY	WILL BR ASS	ESSED.	City/State/Zip
NOTI	CE SERVED ON:		(DATE)	Posted true copy of this notice at the site of the infraction.
Name	: Last	First	Middle	Inspector's signature Date
I herel	by acknowledge receip	ot of this Notice	of Violation.	Print Name:
Signat	zer is not an admissio	n of guilt.		Phone Number:
Signat			Date	
aigum	aure Z		Date	3
Copies	: Violator's -White	City	Ancracy -Yellow	Community Development & Planning-Blue Treasurer's - Pink

CITY/TOWN

INDIVIDUAL/BU SS RESPONSIBLE FOR VIOLATION:

Property/Business Owner Property Occupant

NAME

STATE

ADDRESS

ZIP

- MILE

WARNING

YOU ARE REQUIRED TO RESPOND TO THIS NOTICE WITHIN 15 DAYS IN ONE OF THE POLLOWING WAYS. HOWEVER, ADDITIONAL NOTICES OF VIOLATION MAY BE ISSUED WITHIN THAT TIME PERIOD IF WARRANTED. FAILURE TO RESPOND TO THIS NO-TICE WILL RESULT IN THE FILING OF A CIVIL LAW-SUIT TO ENFORCE THE PENALTY IMPOSED HEREIN.

1. TO PAY PENALTY & WAIVE YOUR RIGHT TO HEARING

- Check the "Admit Violation" or "No Contest" box below;
- Make personal check, cashier's check, certified check or money order payable to City of Fairfax. Do not send eash through the mail, print violation notice number on the check or money order;
- Payment may be made by mail, or in person, at the Treasurer's Office, City Hall, 10455 Armstrong St., Room 234, Fair faz. VA 22030 between the hours of 8:30 s.m .- 5:00 p.m., Monday-Friday, phone (703 385-7902); -OR-

2. TO REQUEST A COURT HEARING

- Check the "Contest in Court" box below and;
- Mail this completed notice to the Department of Community Development & Planning, 10455 Armstrong Street, Fairfax, VA 22030; ---OR---
- Appear in person or by authorized representative at the above address between the hours of 8:30 a.m-5:00 p.m., Monday -Friday phone (703) 385-7820.
- If you wish to contest this violation, a date will be set for trial in General District Court of Fairfax, Virginia. Failure to appear in court on the date set for trial, unless prior approval has been granted by a judge of that court, will result in the
- entry of default judgment against you, —OR—
 3. TO CONTEST THE INTERPRETATION OF ORDINANCE You have the right to appeal the interpretation of the zoning ordinance upon which this violation is based to the Board of Zoning Appeals within 30 days in accordance with 15.2-2311 of the Code of Virginia. To file such an appeal, you must complete the appropriate written request and pay the appropriate fee for such appeal with the Department of Community Development & Planning. The interpretation shall be final if not appealed within 30 days.

YOU MUST COMPI Choose One: O Admit Vi	LETE & SIGN	THIS CERTIFICATION
Contest la	Court	Appeal to BZA
Name (print)		
Street Address		
City	State	Zip
Telephone Number		
I hereby certify under pena above, and corrected or ma	de substantial	I have answered as indicated effort to correct the violation

Signeture

Property Name	Property Address	BMP Type	Owner Address	Date Installed	Date Last
Professional Centers of Fairafax	10875 Main St	Detention Pond	10875 Main St Fairfax, VA 22030	1/1/83	6/4/14
3900 Jermantown Rd	3900 Jermantown Rd	Underground Detention	3900 Jermantown Rd Fairfax, VA 22030	1/1/86	6/4/14
11051-61 Lee Highway	11051-61 Lee Hwy	Underground Detention	4 Reservoir Cir, #400 Pikeville, MD 21208	1/1/87	6/19/14
Fair Oaks Square Condominiums	11092-96 Lee Hwy	Underground Detention	P.O. Box 644 Centreville, VA 20121	1/1/87	6/9/14
Sunset Center	11123 Lee Hwy	Underground Detention	200 Central Park South #4C New York, NY 10019	1/1/87	6/4/14
Texaco Kamp Washington	11090 Lee Hwy	Underground Detention	216 S. Payne St Alexandria, VA 22314	1/1/92	6/4/14
Britt Property	11165 Fairfax Blvd	Detention Pond	11165 Fairfax Blvd Fairfax, VA 22030	1/1/00	6/4/14
Fairfax Junction	11001 Fairfax Blvd	Underground Detention	270 Commerce Dr Rochester, NY 14623	1/1/00	6/4/14
Fairfax Junction	11001 Fairfax Blvd	Underground Detention	270 Commerce Dr Rochester, NY 14623	1/1/00	6/4/14
Fairfax Junction	11001 Fairfax Blvd	Underground Detention	270 Commerce Dr Rochester, NY 14623	1/1/00	6/4/14
Fairfax Junction	11001 Fairfax Blvd	MTD - Stormceptor	270 Commerce Dr Rochester, NY 14623	1/1/00	6/4/14
Fairfax Junction	11001 Fairfax Blvd	MTD - Stormceptor	270 Commerce Dr Rochester, NY 14623	1/1/00	6/4/14
10930-40 Fairfax Blvd	10930-40 Fairfax Blvd	Rain Tank	6800 Deerpath Rd, Ste 100 Elkridge, MD 21075	1/1/07	6/4/14
10930-40 Fairfax Blvd	10930-40 Fairfax Blvd	Permeable Pavement	6800 Deerpath Rd, Ste 100 Elkridge, MD 21075	1/1/07	6/4/14
Lanier Middle School	3801 Jermantown Rd	Underground Detention	10455 Armstrong St Fairfax, VA 22030	1/1/08	6/4/14

Walgreens #11570	10980 Fairfax Blvd	MTD - Filterra	7100 Rutherford Rd Baltimore, MD 21244	1/1/09	6/4/14
TD Bank	11098 Fairfax Blvd	MTD - Stormfilter	8720 Ewing Dr Bethesda, MD 20817	1/1/12	6/4/14
10831 Main St	10831 Main St	Underground Detention	10831 Main St Fairfax, VA 22030	1/1/81	6/19/14
10030 Fairfax Blvd	10030 Fairfax Blvd	Detention Pond	3 Moon Creek Cir Smithfield, VA 23430	1/1/84	6/2/14
3554 Chain Bridge Rd	3554 Chain Bridge Rd	Underground Detention	3900 Jermantown Rd Fairfax, VA 22030	1/1/85	6/2/14
3554 Chain Bridge Rd	3554 Chain Bridge Rd	Underground Detention	3900 Jermantown Rd Fairfax, VA 22030	1/1/85	6/2/14
Exxon	10480 Fairfax Blvd	MTD - Oil/Grit Separator	6820 B Commercial Dr Springfield, VA 22151	1/1/93	6/19/14
Crowne Service Station	10800 Fairfax Blvd	MTD - Oil/Grit Separator	12680 Darby Brooke Ct Woodbridge, VA 22192	1/1/97	6/2/14
The Shops at Fairfax	10710 Fairafx Blvd	MTD - Stormceptor	7501 Wisconsin Ave #1500 Bethesda, MD 20814	1/1/98	6/2/14
Lot 25 Fairfax Acres	10602 Orchard St	Not Present - Infiltration Trench	10602 Orchard St Fairfax, VA 22030	1/1/06	6/2/14
Lot 25 Fairfax Acres	10602 Orchard St	Not Present - Infiltration Trench	10602 Orchard St Fairfax, VA 22030	1/1/06	6/2/14
Boulevard shopping Center	10700 Fairfax Blvd	MTD - Filterra	7501 Wisconsin Ave #1500 Bethesda, MD 20814	1/1/08	6/2/14
Boulevard shopping Center	10700 Fairfax Blvd	MTD - Filterra	7501 Wisconsin Ave #1500 Bethesda, MD 20814	1/1/08	6/2/14
Boulevard shopping Center	10700 Fairfax Blvd	MTD - Filterra	7501 Wisconsin Ave #1500 Bethesda, MD 20814	1/1/08	6/2/14
Boulevard shopping Center	10700 Fairfax Blvd	MTD - Filterra	7501 Wisconsin Ave #1500 Bethesda, MD 20814	1/1/08	6/2/14
Boulevard shopping Center	10700 Fairfax Blvd	MTD - Filterra	7501 Wisconsin Ave #1500 Bethesda, MD 20814	1/1/08	6/2/14

Mariott Residence Inn	3565 Chain Bridge Rd	MTD - Filterra	100 E 80th PI #700 North Merrillville, IN 46410	1/1/10	6/2/14
McLean Estates	3602-06 McLean Ave	Underground Detention	P.O. Box 66 Annandale, VA 22003	1/1/13	6/2/14
Jiffy Lube	10535 Fairfax Blvd	Underground Detention	724 A Warrenton Rd Falmouth, VA 22406	1/1/82	5/30/14
Fairfax Crossroads	3601-15 Chain Bridge Rd	Underground Detention	P.O. Box 220010 Chantilly, VA 20153	1/1/85	5/30/14
Fairfax Crossroads	3601-15 Chain Bridge Rd	Underground Detention	P.O. Box 220010 Chantilly, VA 20153	1/1/85	5/30/14
Miller-Smith Office Building	10565 Fairfax Blvd	Underground Detention	3601 D Chain Bridge Rd Fairfax, VA 22030	1/1/86	6/23/14
Miller-Smith Office Building	10565 Fairfax Blvd	MTD - Rooftop Detention	10509 Summit Ave Kensington, MD 20895	1/1/86	6/26/14
Warwick Park	10520 Warwick Ave	Underground Detention	3600 Chain Bridge Rd Fairfax, VA 22030	1/1/86	5/30/14
Warwick Park	10520 Warwick Ave	Underground Detention	3600 Chain Bridge Rd Fairfax, VA 22030	1/1/86	6/23/14
Limewood Mews	3703-23 Jenny Lynne Ln	Detention Pond	3707 Jenny Lynne Ln Fairfax, VA 22030	1/1/86	5/30/14
Fairfax Toyota	10441 Fairfax Blvd	Underground Detention	2900 Brents Landing Dr Bumpass, VA 23024	1/1/87	5/30/14
Fairfax Toyota	10441 Fairfax Blvd	Underground Detention	2900 Brents Landing Dr Bumpass, VA 23024	1/1/87	6/19/14
Exxon	10485 Fairfax Blvd	MTD - Stormceptor	125 Jericho Tpk, Ste 103 Jericho, NY 11753	1/1/98	6/19/14
Windy Hill	Sharpes Meadow Ln	Detention Pond	3571 Sharpes Meadow Ln Fairfax, VA 22030	1/1/98	5/30/14
Verizon Addition to Fairfax Central Office	10431 Fairfax Blvd	Infiltration Trench	724 A Warrenton Rd Falmouth, VA 22406	1/1/02	5/30/14
Verizon Addition to Fairfax Central Office	10431 Fairfax Blvd	MTD - Rooftop Detention	724 A Warrenton Rd Falmouth, VA 22406	1/1/02	5/30/14

Verizon Addition to Fairfax Central Office	10431 Fairfax Blvd	MTD - Rooftop Detention	724 A Warrenton Rd Falmouth, VA 22406	1/1/02	5/30/14
Verizon Addition to Fairfax Central Office	10431 Fairfax Blvd	MTD - Stormceptor	724 A Warrenton Rd Falmouth, VA 22406	1/1/02	5/30/14
3701 Chain Bridge Rd	3701 Chain Bridge Rd	Infiltration Trench	3701 Chain Bridge Rd Fairfax, VA 22030	6/19/14	6/19/14
Carriage Landing	1508-1512 Center St	Infiltration Trench	P.O. Box 3649 Oakton, VA 22030	1/1/05	5/30/14
Carriage Landing	1508-1512 Center St	Infiltration Trench	P.O. Box 3649 Oakton, VA 22030	1/1/05	5/30/14
Carriage Landing	1508-1512 Center St	Infiltration Trench	P.O. Box 3649 Oakton, VA 22030	1/1/05	5/30/14
3617 Chain Bridge Rd	3617 Chain Bridge Rd	Infiltration Trench	4783 Thornbury Dr Fairfax, VA 22030	1/1/12	5/30/14
Commonwealth Park	4260-66 Chain Bridge Rd	Detention Pond	4400 University Dr Fairfax, VA 22030	1/1/85	6/3/14
Inns of Court	10446-62 Armstrong St	Underground Detention	365 Herndon Pkwy, Ste 106 Herndon, VA 20170	1/1/85	6/3/14
Eaves by Avalon Apartments	10600 Kitty Pozer Dr	Underground Detention	671 N Glebe Rd #800 Arlington, VA 22203	1/1/86	6/3/14
Eaves by Avalon Apartments	10600 Kitty Pozer Dr	Underground Detention	671 N Glebe Rd #800 Arlington, VA 22203	1/1/86	6/3/14
Chancery Square	Governor Yeardley Ln	Underground Detention	11351 Random Hills Rd Ste 500 Fairfax, VA 22030	1/1/94	6/19/14
Chancery Square	Governor Yeardley Ln	Underground Detention	11351 Random Hills Rd Ste 500 Fairfax, VA 22030	1/1/94	6/19/14
Crestmont II	10438 Courtney Dr	Underground Detention	10503 Trowbridge Ct Fairfax, VA 22030	1/1/98	6/3/14
Mason Oaks	4331-6 Mason Oaks Ct	Underground Detention	4232 Mason Oaks Ct Fairfax, VA 22030	1/1/02	6/3/14
Fairfax City Hall	10455 Armstrong St	Bioretention	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/3/14

Fairfax City Hall	10455 Armstrong St	MTD - Filterra	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/3/14
Fairfax City Hall	10455 Armstrong St	MTD - Filterra	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/3/14
Fairfax City Hall	10455 Armstrong St	Underground Detention	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/23/14
One God Ministry	4280-82 Chain Bridge Rd	Infiltration Trench	P.O. Box 7282 Fairfax Station, VA 22039	1/1/06	6/3/14
Providence Park Tennis Courts	10615 Canfield St	Bioretention	10455 Armstrong St #123 Fairfax, VA 22030	1/1/10	6/3/14
Providence Park Tennis Courts	10615 Canfield St	Underground Detention	10455 Armstrong St #123 Fairfax, VA 22030	1/1/10	6/3/14
Providence Park Tennis Courts	10615 Canfield St	Detention Pond	10455 Armstrong St #123 Fairfax, VA 22030	1/1/10	6/3/14
Providence Park Tennis Courts	10615 Canfield St	Underground Detention	10455 Armstrong St #123 Fairfax, VA 22030	1/1/10	6/3/14
Canfield Village	4822-94 Chain Bridge Rd	MTD - Filterra	6821 Ox Rd Fairfax Station, VA 22039	1/1/11	6/3/14
Canfield Village	4822-94 Chain Bridge Rd	MTD - Stormfilter	6821 Ox Rd Fairfax Station, VA 22039	1/1/11	6/3/14
Canfield Village	4822-94 Chain Bridge Rd	MTD - Stormfilter	6821 Ox Rd Fairfax Station, VA 22039	1/1/11	6/3/14
Canfield Village	4822-94 Chain Bridge Rd	MTD - Stormfilter	6821 Ox Rd Fairfax Station, VA 22039	1/1/11	6/3/14
Canfield Village	4822-94 Chain Bridge Rd	Underground Detention	6821 Ox Rd Fairfax Station, VA 22039	1/1/11	6/3/14
Canfield Village	4822-94 Chain Bridge Rd	Underground Detention	6821 Ox Rd Fairfax Station, VA 22039	1/1/11	6/23/14
City Square Office Building	10640 Page Ave	Underground Detention	P.O. Box 12847 Roanoke, VA 24029	1/1/81	5/29/14
Kelly Square	10777-808 Main St	Detention Pond	7200 Wisconsin Ave #200 Bethesda, MD 20814	1/1/81	6/17/14

Railroad Ave Office Building	3905 Railroad Ave	Underground Detention	3905 Railroad Ave Fairfax, VA 22030	1/1/85	5/29/14
Jones St. Joint Venture	10617-27 Jones St	Underground Detention	10617 Judicial Dr, Ste 201-A Fairfax, VA 22030	1/1/86	6/19/14
Mainland Office Building	10680 Main St	Underground Detention	14595 Avion Pkwy, Ste 100 Chantilly, VA 20151	1/1/86	5/29/14
Judicial Court	10615 Judicial Dr	Underground Detention	10615 Judicial Dr, Unit 101 Fairfax, VA 22030	1/1/88	5/29/14
Railroad Square	10601-24 Main St	Underground Detention	P.O. Box 644 Centreville, VA 20121	1/1/89	5/29/14
Railroad Square	10601-24 Main St	Underground Detention	P.O. Box 644 Centreville, VA 20121	1/1/89	5/29/14
Fairfax Surgical Center	10730 Main St	Underground Detention	10730 Main St Fairfax, VA 22030	1/1/03	6/23/14
Fairfax Surgical Center	10730 Main St	Bioretention	10730 Main St Fairfax, VA 22030	1/1/03	5/29/14
Old Town Village & Webb Building	3955 Chain Bridge Rd	MTD - Stormfilter	6231 Leesburg Pike, Ste 100 Falls Church, VA 22044	1/1/05	6/19/14
Old Town Village & Webb Building	3955 Chain Bridge Rd	MTD - Stormfilter	6231 Leesburg Pike, Ste 100 Falls Church, VA 22044	1/1/05	6/19/14
National Pest Management Office Bldg	10460 North St	Underground Detention	10460 North St Fairfax, VA 22030	1/1/09	5/29/14
National Pest Management Office Bldg	10460 North St	MTD - Stormceptor	10460 North St Fairfax, VA 22030	1/1/09	5/29/14
PNC Bank	10649 Main St	Bioretention	620 Liberty Rd Pittsburgh, PA 15222	1/1/10	5/29/14
PNC Bank	10649 Main St	MTD - Filterra	620 Liberty Rd Pittsburgh, PA 15222	1/1/10	5/29/14
Fairfax Nursing Center	10701 Main St	MTD - Stormfilter	10701 Main St Fairfax, VA 22030	1/1/10	5/29/14
Fairfax Nursing Center	10701 Main St	MTD - Filterra	10701 Main St Fairfax, VA 22030	1/1/10	5/29/14

First Federal Plaza	4020 University Dr	Underground Detention	919 E. Main St Richmond, VA 23219	1/1/76	5/28/14
Fairfax Towne Office Park	10195 Main St	Underground Detention	8496-B Tyco Rd Tysons Corner, VA 22180	1/1/85	5/29/14
Courthouse Square Section III	10401-10417 Breckinridge Ln	Detention Pond	10451 Breckinridge Ln Fairfax, VA 22030	1/1/88	5/28/14
Fairfax Christian Church	10185 Main St	Infiltration Trench	10185 Main St Fairfax, VA 22030	1/1/89	5/28/14
Fairfax Christian Church	10185 Main St	Infiltration Trench	10185 Main St Fairfax, VA 22030	1/1/89	5/28/14
John Trammell Commons	John Trammell Ct	Underground Detention	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	4104 John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	4110 John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
John Trammell Commons	4105 John Trammell Ct	Infiltration Trench	4104 John Trammell Ct Fairfax, VA 22030	1/1/92	5/28/14
Wrens Courtyard	Wrens Ct	Detention Pond	10203 Wrens Ct Fairfax, VA 22030	1/1/93	5/28/14

The Crossing Condominiums	Vanderbilt Ct	Sand Filter	4115 Lexington Ct #101 Fairfax, VA 22030	1/1/94	6/19/14
FB&T Building	4117 Chain Bridge Rd	Underground Detention	P.O. Box 1290 Winston Salem, NC 21021	1/1/98	5/28/14
University Center	10252-330 Main St	Sand Filter	1760 Reston Pkwy, Ste 210 Reston, VA 20190	1/1/00	6/23/14
University Center	10252-330 Main St	Not Present - Bioretention	1760 Reston Pkwy, Ste 210 Reston, VA 20190	1/1/00	6/23/14
Providence Square Condominiums	10343 Main St	Sand Filter	10328 Sager Ave #223 Fairfax, VA 22030	1/1/01	6/19/14
Providence Square Condominiums	10343 Main St	Underground Detention	10328 Sager Ave #223 Fairfax, VA 22030	1/1/01	5/29/14
Providence Square Condominiums	10343 Main St	MTD - Stormceptor	10328 Sager Ave #223 Fairfax, VA 22030	1/1/01	5/29/14
4020 Walters Ct	4020 Walters Ct	Infiltration Trench	4020 Walters Ct Fairfax, VA 22030	1/1/09	5/28/14
Comstock	9734 Main St	Underground Detention	3955 Bradwater St Fairfax, VA 22030	1/1/74	6/12/14
Screen Printing Association International	10015 Main St	Underground Detention	10015 Main St Fairfax, VA 22030	1/1/81	6/10/14
9959 Main St	9959 Main St	Underground Detention	754 Elden St, Ste 201 Herndon, VA 20170	1/1/84	6/12/14
Woodson Square Professional Office Park	9661 Main St	Detention Pond	6395 Little River Tpk Alexandria, VA 22312	1/1/85	6/12/14
Kindercare Learning Center	9749 Main St	Underground Detention	P.O. Box 6760 Portland, OR 97266	1/1/85	6/12/14
Church of the Apostles	3500 Pickett Rd	Underground Detention	1340 Braddock PI, Ste 200 Alexandria, VA 22314	1/1/89	6/11/14
Church of the Apostles	3500 Pickett Rd	Infiltration Trench	1340 Braddock PI, Ste 200 Alexandria, VA 22314	1/1/89	6/11/14
Church of the Apostles	3500 Pickett Rd	Infiltration Trench	1340 Braddock Pl, Ste 200 Alexandria, VA 22314	1/1/89	6/11/14

Church of the Apostles	3500 Pickett Rd	Infiltration Trench	1340 Braddock PI, Ste 200 Alexandria, VA 22314	1/1/89	6/11/14
Ridgecrest	9810 Cresence Way	Underground Detention	9803 Cresence Way Fairfax, VA 22032	1/1/93	6/12/14
Barristers Keepe	3462 Barristers Keepe Cir	Underground Detention	3484 Barristers Keepe Cir Fairfax, VA 22031	1/1/95	6/18/14
Kirkwood	9806 Kirktree Ct	Underground Detention	9802 Kirktree Ct Fairfax, VA 22032	1/1/96	6/12/14
Chevy Chase Bank	10100 Main St	MTD - Filterra	P.O. Box 8265 Wichita Falls, TX 76307	1/1/04	6/10/14
Apple Federal Credit Union	9701 Main St	MTD - Stormceptor	P.O. Box 888 Fairfax, VA 22038	1/1/05	6/12/14
4096 Orchard Dr	4096 Orchard Dr	Bioretention	10805 Main St, Ste 700 Fairfax, VA 22030	1/1/11	6/10/14
TD Bank	9504 Main St	MTD - Bayfilter	NW #700 E. Washington, DC	1/1/12	6/12/14
Turnpike Shopping Center	9500-9580 Main St	MTD - Filterra	NW #700 E. Washington, DC	1/1/12	6/10/14
Turnpike Shopping Center	9500-9580 Main St	MTD - Filterra	NW #700 E. Washington, DC	1/1/12	6/16/14
Turnpike Shopping Center	9500-9580 Main St	MTD - Filterra	NW #700 E. Washington, DC	1/1/12	6/10/14
Turnpike Shopping Center	9500-9580 Main St	MTD - Filterra	NW #700 E. Washington, DC	1/1/12	6/10/14
Fairfax Commons	3917 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3915 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3913 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3911 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14

Fairfax Commons	3925 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3923 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3921 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3919 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3929 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Fairfax Commons	3927 Old Lee Hwy	MTD - Rooftop Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/23/14
Fairfax Commons	3917 Old Lee Hwy	Underground Detention	13998 Parkeast Cir Chantilly, VA 20151	1/1/87	6/17/14
Daniel's Run Elementary School	3705 Old Lee Hwy	Underground Detention	10455 Armstrong St Fairfax, VA 22030	1/1/99	6/10/14
Fairfax City Police Station	3740 Old Lee Hwy	Extended Detention Pond	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/10/14
Fairfax City Regional Library	10360 North St	Underground Detention	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/10/14
Fairfax City Regional Library	10360 North St	MTD - Stormfilter	10455 Armstrong St #200 Fairfax, VA 22030	1/1/05	6/23/14
Historic Blenheim House	3610 Old Lee Hwy	Detention Pond	10209 Main St Fairfax, VA 22030	1/1/07	6/16/14
Historic Blenheim House	3610 Old Lee Hwy	Bioretention	10209 Main St Fairfax, VA 22030	1/1/07	6/10/14
3801 University Dr	3801 University Dr	Underground Detention	3801 University Dr Fairfax, VA 22030	1/1/08	6/10/14
3801 University Dr	3801 University Dr	MTD - Stormfilter	3801 University Dr Fairfax, VA 22030	1/1/08	6/10/14
Fairfax County Health Department Lab	10310 Layton Hall Dr	MTD - Filterra	12000 Government Center Pkwy #522	1/1/09	6/10/14

Courthouse Plaza One	10366-98 Democracy Ln	Bioretention	7811 Montrose Rd, Ste 500 Potomac, MD 20854	1/1/13	6/10/14
Fairfax Boulevard Crossing	9940 Fairfax Blvd	Underground Detention	1760 Reston Pkwy, Ste 210 Reston, VA 20190	1/1/78	6/11/14
Boulevard Courts	9917 Fairfax Blvd	Infiltration Trench	22027 Diamond Chase San Antonio, TX 78259	1/1/80	6/11/14
Sparks Tune-up	9881-85 Fairfax Blvd	Underground Detention	8643 Phoenix Dr Manassas, VA 22110	1/1/85	6/11/14
Fairfax Oaks	9620 Ridge Ave	Underground Detention	9612 Ridge Ave Fairfax, VA 22030	1/1/86	6/11/14
Farrish Dealership	3163 Roanoke St	Underground Detention	1035 Rainbow Ct Bradenton, FL 34212	1/1/86	6/17/14
Dunkin Donuts	9550 Fairfax Blvd	Detention Pond	130 Royall St #100 - PC306136 Canton, MA 02021	1/1/87	6/11/14
M&T Bank	9720 Fairfax Blvd	Underground Detention	6345 Westchester Pl Cumming, GA 30040	1/1/95	6/11/14
CubeSmart Self-Storage	3179 Draper Dr	Underground Detention	P.O. Box 320099 Alexandria, VA 22320	1/1/98	6/11/14
Fairfax Racquet Club	9860 Fairfax Blvd	Sand Filter	9860 Fairfax Blvd Fairfax, VA 22030	1/1/01	6/17/14
Town & Country Animal Hospital	9836 Fairfax Blvd	Bioretention	9836 Fairfax Blvd Fairfax, VA 22030	1/1/02	6/11/14
Town & Country Animal Hospital	9836 Fairfax Blvd	Bioretention	9836 Fairfax Blvd Fairfax, VA 22030	1/1/02	6/11/14
Patriot Harley Davidson	9739 Fairfax Blvd	Bioretention	9739 Fairfax Blvd Fairfax, VA 22030	1/1/02	6/11/14
Patriot Harley Davidson	9739 Fairfax Blvd	Bioretention	9739 Fairfax Blvd Fairfax, VA 22030	1/1/02	6/11/14
Patriot Harley Davidson	9739 Fairfax Blvd	Sand Filter	9739 Fairfax Blvd Fairfax, VA 22030	1/1/02	6/11/14
Patriot Harley Davidson	9739 Fairfax Blvd	MTD - Rooftop Detention	9739 Fairfax Blvd Fairfax, VA 22030	1/1/02	6/11/14

.

A+ Used Car Sales & Service	9711 Fairfax Blvd	Not Present - Bioretention	10850 Balls Ford Rd Manassas, VA 20109	1/1/05	6/19/14
Fairfax High School	3501 Rebel Run	MTD - Stormfilter	10455 Armstrong St Fairfax, VA 22030	1/1/05	6/11/14
Fairfax Blvd Parcel	Fairfax Blvd west of Rebel Run	Detention Pond	10455 Armstrong St, Rm 200 Fairfax, VA 22030	1/1/05	6/11/14
Army Navy Country Club	3315 Old Lee Hwy	Detention Pond	1700 Army Navy Dr Arlington, VA 22202	1/1/10	6/11/14
Army Navy Country Club	3315 Old Lee Hwy	Detention Pond	1700 Army Navy Dr Arlington, VA 22202	1/1/10	6/11/14
Farrish Dodge/Jeep Dealership	9610 Fairfax Blvd	MTD - Filterra	1035 Rainbow Ct Bradenton, FL 34212	1/1/10	6/11/14
Farrish Dodge/Jeep Dealership	9610 Fairfax Blvd	Underground Detention	1035 Rainbow Ct Bradenton, FL 34212	1/1/10	6/17/14
Fairfax Boulevard Center	9607-9625 Fairfax Blvd	MTD - Filterra	11208 Split Rail Ln Fairfax, VA 22039	1/1/10	6/12/14
Gillco Building	9560 Lee Hwy	Soil Amendments	6505 Old Stone Fence Rd Fairfax Station, VA 22039	1/1/11	6/11/14
Red Lobster Restaurant	10325 Fairfax Blvd	Infiltration Trench	P.O. Box 695019 - Tax Dept Orlando, FL 32869	1/1/77	6/12/14
Red Lobster Restaurant	10325 Fairfax Blvd	Infiltration Trench	P.O. Box 695019 - Tax Dept Orlando, FL 32869	1/1/77	6/12/14
Red Lobster Restaurant	10325 Fairfax Blvd	Infiltration Trench	P.O. Box 695019 - Tax Dept Orlando, FL 32869	1/1/77	6/12/14
Fire Station #33	10101 Fairfax Blvd	Infiltration Trench	City of Fairfax Dept of Public Works	1/1/78	6/18/14
CVS Pharmacy	10090 Fairfax Blvd	Underground Detention	8101 Glenbrook Rd, Ste B Bethesda, MD 20814	1/1/78	6/23/14
Sherwood Plaza	9990 Fairfax Blvd	Underground Detention	11307 Sunset Hills Rd, Ste A- 1 Reston, VA 20190	1/1/84	6/18/14
Holiday Inn Express	10327 Fairfax Blvd	Underground Detention	7871 Belle Point Dr Greenbelt, MD 20770	1/1/84	6/18/14

Ourisman Fairfax Toyota	10287 Fairfax Blvd	Underground Detention	6129 Richmond Hwy Alexandria, VA 22303	1/1/84	6/18/14
Gatewood Plaza	10201 Fairfax Blvd	Underground Detention	5001 Spring Valley Rd, Ste 400 W. Dallas, TX 75244	1/1/85	6/18/14
Gatewood Plaza	10201 Fairfax Blvd	Underground Detention	5001 Spring Valley Rd, Ste 400 W. Dallas, TX 75244	1/1/85	6/18/14
Main Street Bank	10089 Fairfax Blvd	Underground Detention	727 Elden St Herndon, VA 20170	1/1/85	6/18/14
Main Street Bank	10089 Fairfax Blvd	MTD - Rooftop Detention	727 Elden St Herndon, VA 20170	1/1/85	6/19/14
Ourisman Fairfax Toyota	10245 Fairfax Blvd	Underground Detention	6129 Richmond Hwy Alexandria, VA 22303	1/1/86	6/18/14
Willow Wood Plaza	10300-10400 Eaton Pl	Underground Detention	500 Chesterfield Pkwy Malvern, PA 19355	1/1/87	6/18/14
Stafford Drive Park	3300 Stafford Dr	Bioretention	10455 Armstrong St Fairfax, VA 22030	1/1/07	6/18/14
Stafford Drive Park	3300 Stafford Dr	Infiltration Trench	10455 Armstrong St Fairfax, VA 22030	1/1/07	6/18/14
Draper Drive Park	9797 Beech Dr	Bioretention	10455 Armstrong St Fairfax, VA 22030	1/1/09	6/17/14
Draper Drive Park	9797 Beech Dr	Infiltration Trench	10455 Armstrong St Fairfax, VA 22030	1/1/09	6/17/14
Draper Drive Park	9797 Beech Dr	Infiltration Trench	10455 Armstrong St Fairfax, VA 22030	1/1/09	6/17/14
Boulevard Marketplace	10120 Fairfax Blvd	MTD - Stormfilter	1945 Old Gallows Rd, Ste 300 Vienna, VA 22182	1/1/12	6/18/14
Boulevard Marketplace	10120 Fairfax Blvd	MTD - Stormfilter	1945 Old Gallows Rd, Ste 300 Vienna, VA 22182	1/1/12	6/18/14
Boulevard Marketplace	10120 Fairfax Blvd	Underground Detention	1945 Old Gallows Rd, Ste 300 Vienna, VA 22182	1/1/12	6/18/14
Boulevard Marketplace	10120 Fairfax Blvd	Underground Detention	1945 Old Gallows Rd, Ste 300 Vienna, VA 22182	1/1/12	6/18/14

Freddy's Steakburger 10030 Fairfax Blvd Detention Pond	3 Moon Creek Cir Smithfield, VA 23430	1/1/13	6/18/14
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APPENDIX C-6

Exhibits for Minimum Control Measure #6- Pollution Prevention/Good Housekeeping for Municipal Operations

City of Fairfax Locality Recycling Rate Report- Calendar Year 2013

City of Fairfax Website- Refuse and Recycling

Commercial Recycling- City of Fairfax Website

City of Fairfax Recycling report- City of Fairfax Website

Curbside Recycling is Easier than Ever- City of Fairfax Website

Reduce and Reuse-City of Fairfax Website

Recycling and Waste Reduction- City of Fairfax Website City of Fairfax

Leaf Collection Routes

Letters to Neighborhood Recycling Coordinators and Civic Leaders

PRMs	As Submitted	Changes	SWPU Fairfax City		4/30/1
			Submitted RR:	58.5°/o	
Paper	12210		DEQ Adjusted RR:		
M ⊘ tal	4094				
P 🛊 stic	611				
G c;ISS	497	<u> </u>	Calculations:	SWPU	DEQ
Commingled	426		PRMs/(PRMs + M) x 100	58.4%	#DIV/0
Yard Waste	9417		1		
Waste Wood	2973				
Textiles	24				
Irres	803		(PRMs+C)/(PRMs+C+M) × 100	58.4%	#DIV/0
ed Oil	420				
sed Oil Filters	91				
Used Antifreeze	76				
atteries	124		M=MSW		
Electronics	17		C=Credits		
noperative Motor Vehicles	0				
Other	0				
Other	0				
Total:	31783	0			
visw:					
lousehold	6137				
Commercial	16523				
nstitutional	0				
Other	0		Base Recycling Rate	58.4%	#DIV/0
Total:	22660	0			
Predits:					
Recycling Residue	0				
			Adjusted RR#1	58.4%	#DIV/0
Solid Waste Reused	0				
			Adjusted RR # 2	58.4%	#DIV/0
Non MSW Recycled	0				
			(Max of 5%) Credits:	58.4%	#DIV/0!
Credits Total Tons	0	0			
Table 1			Final RR:	58.4%	#DIV/0!
ource Reduction	0.00%	0.00%			
Votes:					
					

Refuse & Recycling

For information call 703-385-7837 or email RefuseRecycling@fairfaxva.gov



The city collects refuse and recyclable items from all single family homes in the city once a week at no charge. Nearly all items are picked up on the regular collection day with no call-in required. The city also operates a recycling drop off center on Pickett Road. Highlights of the rules and regulations pertaining to city's refuse and recycling services are provided below.

Rules and Regulations

- Household Refuse Collection
- Recyclable Collection
- Yard Waste
- Metals/Appliances
- Leaves
- Contractor's Debris and Yard Waste
- Brush and Stumps
- Lumber
- Debris
- Paint
- Household Hazardous Waste
- Penalty

Household Refuse Collection

- Refuse collection is provided to all single-family homes on a once-per-week basis.
- Refuse, non-recyclable kitchen waste and household refuse is collected. Pets must be secured.
- Sofas, mattresses, televisions, tires and carpet placed at the curb will also be collected.
- Place needles in thick plastic containers labeled "SHARPS." For more information on medical waste disposal, please visit the Fairfax County's Web site
- Refuse must be placed in plastic or metal refuse cans with lids or in plastic bags. Do not store refuse cans in the front yard.
- Residents must provide their own trash cans. Size/weight of can must not exceed 35 gallons or 60 pounds.
- Residents must place all refuse at the curb before 7 am on the collection day.
- Refuse may be set out at the curb no earlier than dusk the evening prior to collection. Refuse
 cans are to be removed from the street by 8 pm on collection day.

Recyclable Collection

- Download Recycling Guide
- Each household is required to recycle plastic, milk, soda and water jugs, glass bottles and jars, metal and aluminum cans, newspapers with inserts, catalogs, magazines and flattened cardboard and paperboard. Containers must be rinsed and caps or lids removed. Place

newspaper in plastic or paper bags. Cardboard must be flattened and be no larger than $3'x \ 3'x \ 6"$.

- Collection is once per week on regular refuse collection day. No call-in necessary.
- City-supplied or similar plastic bins are required and must be placed at the curb by 7 AM.
- For bins or missed pick-ups, call 703-385-7837 or email.

Yard Waste

(grass & shrub clippings, twigs, limbs, acorns, flower & garden vegetation)

- No call-in necessary. Pick up will be on regular household refuse collection day. Place containers at curb on regular refuse collection day before 7 am.
- All grass and shrub clippings, twigs, limbs, acorns, flower and garden vegetation may be
 intermixed and must be placed in plastic or paper bags, or labeled trash cans. All yard waste
 must be placed in containers. Do not place piles of yard waste in the street. The city does not
 clean up piles of yard waste directly from the street.
- Citizens are encouraged to leave grass clippings on the lawn or to compost. For information on composting, call 703-385-7837 or email

Metals/Appliances

(metals are banned from the landfill)

- No call-in necessary. Pick up will be on regular household refuse collection day.
- Stoves, hot water heaters, air conditioners, swing sets, car parts, storm doors and windows, etc., are collected.
- Doors must be removed from refrigerators and freezers.
- Place at curb no more than 24 hours before collection day.

Leaves

- No call-in necessary.
- Leaves are collected by vacuum suction trucks April, November and December.
- Leaves must be raked or placed at the curb or street edge. Do not include mix limbs, branches, rocks, etc., into leaf piles, as these items damage equipment. However, small items, such as grass clippings, weeds and acorns, may be included.
- Bagged or canned leaves will not be collected during leaf season (April, November and December).
- For collection of leaves other than April, November and December, leaves must be placed in paper bags, plastic bags or trash cans and set at the curb the same as other yard waste for collection on regular trash collection day.

Contractor's Debris and Yard Waste

 Brush, leaves, grass clippings, building materials, etc., resulting from work performed by contractors will **not** be collected (Chapter 74, Section 74-4(F)(2) City Code. Contractors are required to haul away their own debris.

Brush and Stumps

No call-in necessary. Pick up will be on regular household refuse collection day.

- Limbs, branches, tree trunks, etc., are to be no more than 8 feet in length.
- This service is for large piles of brush or stumps only. (For small amounts of twigs, brush and limbs, see instructions for "Yard Waste.")
- Do not place piles under **POWER LINES** or trees, or close to shrubs, walls or vehicles. Place all piles in an open area accessible to the crane truck.
- Large piles of brush may be placed at the curb one week prior to collection.

Lumber

- No call-in necessary. Pick up will be on regular household refuse collection day.
- No contractor lumber.
- Lumber is to be no longer than 8 feet. Please bend nails.
- Large piles are collected by crane truck. Do not place materials under power lines or trees, or next to shrubs or vehicles. Place in an open area.
- Small amounts of untreated lumber can be placed in trash cans and set at curb with yard waste on regular trash collection day.

Debris: concrete, brick, asphalt, etc.

(debris is banned from the landfill)

- No call-in necessary. Pick up will be on regular household refuse collection day.
- Large amounts of bulky material such as drywall, asphalt shingles, brick, concrete, rocks, plate glass, and railroad ties are collected. Separate piles.
- Loose dirt may not be placed at the curb. Please contact 703-385-7837 for details on restrictions and arrangement for pick up.
- Piles containing recyclables, such as brush, metals and leaves, will not be collected with debris.
- Small amounts of debris must be placed in trash cans weighing no more than 60 pounds.
- For propane tank disposal, tanks may be taken to Fairfax County Transfer Station, 4618 West
 Ox Road, and are accepted at no charge (703-324-5040 for information). Fairfax Propane also
 accepts tanks for a fee (703-352-5777 for information).
- Small amounts of debris not in containers will not be collected.
- Bend nails and other sharp objects.
- Remember: the city collects these items from the curb on regular collection day, which requires no special arrangements. Simply place these items at the curb, separate from refuse and recycling, for city collection.

Paint

- Oil based paint is considered to be hazardous waste, please refer to Household Hazardous Waste information for proper disposal information.
- Latex based paints are not collected unless they are completely dried. To speed drying, leave tops off and add kitty litter. Dried latex paint cans may be placed at the curb with tops off for collection.

Household Hazardous Waste

 Pesticides, oil-based paint, gasoline, thinner and other hazardous waste must be taken by the homeowner to the Fairfax County Transfer Station located at 4618 West Ox Road. Call 703-324-5068 for information or go to the County's Web site.

Penalty

• Repeated violations of Refuse and Recycling Regulations can result in a \$25 fine.

If you have any questions, call 703-385-7837 or email Refuse & Recycling

Commercial Recycling

Business Recycling Requirements Expand to Include All City Businesses

The city's regulation for business recycling is covered under City Code:

Sec. 74-9.

- (b) Non-residential (commercial/industrial) recycling.
- (1) Owners of non-residential properties (properties used for commercial or industrial, or other non-residential, purposes) shall provide, or cause to be provide, a recycling system for their tenants, occupants, employees, and vendors to source-separate:
 - Aluminum food and beverage containers
 - Glass food and beverage containers brown, clear or green
 - Ferrous (iron) cans
 - PET plastic containers with the symbol #1 with screw tops only, without caps
 - HDPE natural plastic containers with the symbol #2 narrow neck containers only (milk and water bottles)
 - HDPE pigmented plastic containers with the symbol #2 narrow neck containers only, without caps (detergent, shampoo bottles, etc.)
 - Plastics with symbols #3, #4, #5, #6 and #7 narrow and screw top containers
 - Newsprint
 - Corrugated cardboard
 - Magazines
 - Catalogs
 - Cereal boxes
 - Telephone books
 - Printed paper
 - Copier paper
 - Mail
 - · All other office paper without wax liners
- (2) Owners must provide system users with notification regarding the use and participation in such system upon occupancy and at least once annually thereafter.
- (3) These provisions do not impose any liability upon any non-residential property owner for failure of tenants, occupants, employees, and/or vendors to comply with the requirements for the source separation of recyclable materials. However, all non-residential property owners must provide, or cause to be provided, a recycling system for their tenants, occupants, employees, vendors and/or customers in conformance with the city requirements for such systems, and must provide such tenants, occupants, employees, vendors and/or customers notification regarding the use and participation in such system, as specified herein.
- (c) Recycling Report(s) Required. The owners of all non-residential properties shall annually report, by March 1 of each calendar year, such non-proprietary information regarding waste generation, waste management and recycling as is necessary to facilitate city compliance with applicable regulations adopted pursuant to Virginia Code Section 10.1-1411. All reports required by this section shall be

based on volume or weight of each material recycled, provided that where such measurements cannot be accurately determined, the report may be based on carefully estimated data. Where estimates are submitted, they must contain sufficient detail to reasonably describe how the estimate was prepared, including but not limited to such data as a container volume, frequency of collection, percent full when collected, and the type of material collected for recycling. When information is withheld as proprietary, the report shall specify the nature of the information withheld and the basis for its proprietary determination. Annual recycling reports shall be submitted on a standardized form to be provided by the city manager or his designee, and shall be signed by the property owner, or an individual duly authorized to make such certifications on behalf of such non-residential property owner. Said reports shall include but not be limited to the name and address of the reporting entity, period of time covered by the report, and type and weight/volume of each material reported. Supporting documentation used in the preparation of the report shall be retained for audit and clarification of reported data for a period of two (2) years following submission of said report.

For further questions about commercial recycling, please contact the Public Works Operations Division at**703-385-7837** or email.

Commercial Recycling Report

Back to Refuse & Recycling main page

City of Fairfax Annual Recycling Report Department of Public Works



This report is for the calendar year 2013. Reports are accepted from January 1, 2014 through March 1, 2014. The deadline for submission is March 1, 2014.

All businesses in the City of Fairfax, regardless of size or number of employees, are required to implement a recycling program in the workplace and submit an annual recycling report (as specified in the City Code Section 74-9). There is one exception: If your business is located in your private residence where recyclables are picked up by the City of Fairfax, you do not need to submit a recycling report. (The materials already are accounted for through the city s Refuse/Recycling Division services.)

If you use a trash hauler or recycling services provider, please contact that company and request the information required below. If the information is not available, please use the conversion chart to estimate the amount material your business has recycled.

* Required Field

Company Name:	
Company Address:	
Contact Person: *	
Contact Phone: *	
usiness Locat	ion *
Office Building 🕙 Q	ffice Park Retail Strip Mall
) Shopping Matl 🕙 C	ondominiums 🖱 Single Location 🗇 Other
usiness Type	
Retail Store	🖰 Educational Institution 🕙 Hospital/Health Facility
	Gov't Contractor © Auto/Tires
Hotel/Motel (*) Yard Maintenance (*)	Technology Firm (IT) ② Apartment/Condo Restaurant/BAR ② Other
	led at Your Workplace?
	, then please skip the rest of the form, and click on 'Continue' buttor
Yes No If you answered "NO" at the bottom of this p ne of three o 1. If your trash or name below, and tone	, then please skip the rest of the form, and click on 'Continue' buttor
Pres No If you answered "NO" at the bottom of this p The of three of I. If your trash or mame below, and tone Company Name:	then please skip the rest of the form, and click on 'Continue' buttor page. ptions will apply to you: * shredding company takes the recyclables, please enter the company mage at the bottom of this section.
Pes No If you answered "NO" at the bottom of this point of three of three of three of the point	then please skip the rest of the form, and click on 'Continue' buttor page. ptions will apply to you: * shredding company takes the recyclables, please enter the company mage at the bottom of this section. clables to a city recycling drop-off center, please select this radio ontinue' button. clables to a location or facility outside the boundaries of the City of each materials collected for recycling and the quantity of each
Yes No If you answered "NO" at the bottom of this p The of three of 1. If your trash or name below, and tone Company Name: 2. If you take recy button and click on 'C 3. If you take recy Fairfax, please select	then please skip the rest of the form, and click on 'Continue' buttor page. ptions will apply to you: * shredding company takes the recyclables, please enter the company mage at the bottom of this section. clables to a city recycling drop-off center, please select this radio ontinue' button. clables to a location or facility outside the boundaries of the City of each materials collected for recycling and the quantity of each
Yes No If you answered "NO" at the bottom of this p ne of three op 1. If your trash or name below, and tone Company Name: 2. If you take recy button and click on 'C 3. If you take recy Fairfax, please select material listed in tons	then please skip the rest of the form, and click on 'Continue' buttor page. ptions will apply to you: * shredding company takes the recyclables, please enter the company mage at the bottom of this section. clables to a city recycling drop-off center, please select this radio ontinue' button. clables to a location or facility outside the boundaries of the City of each materials collected for recycling and the quantity of each. Recycled: Tons:

City of Fairfax, VA: Commercial Recycling Report
SETTER FILE OF THE FEMALE COM
SELECT TYPE OF MATERIALS .
SELECT TYPE OF MATERIALS
SELECT TYPE OF MATERIALS
ther Information
o you offer recycling of special items to the public at your workplace (such as batteries, ectronics, fluorescent bulbs, Christmas light, etc)? We will use this information for fluorescent bulbs, Christmas light, etc)? We will use this information for fluorescent bulbs, Christmas light, etc)?
you answered "Yes", please list the items accepted.

Continue



CURBSIDE RECYCLING IS EASIER THAN EVER!

The city has increased the types of materials collected for recycling and has implemented "single-stream" recycling collection. This means you may now place all "Recycling YES" items into the same recycling bin. The advanced equipment at the recycling facility will properly separate materials. Follow the chart below to recycle the right way! Call 703-385-7995 (711 TTY) or visit www.fairfaxva.gov for more information.





Reduce & Reuse



Basics and Benefits of Reducing/Reusing/Recycling

Information from the U.S. Environmental Protection Agency (EPA) about how reducing, reusing, and recycling can help you, our community, and the environment by saving money, energy, and natural resources.

Here are some simple steps you can take to reduce your waste:



Use Reusable Products

Reusable products instead of disposable products is one of the best ways to stop waste. There are tons of opportunities to choose reusable products. <u>Learn more here</u>.



Reduce Junk Mail

Get tips from <u>GlobalStewards.orq</u> on going paperless and reducing junk mail sent to your home or business.



Donate Reusable Items

List your used items for free on <u>Freecycle</u> or <u>Craigslist</u>. You can also donate to charities, such as Goodwill.

Donate or Recycle Your Vehicle

You can donate or recycle your used vehicle with a local charity, such as Wheels For Wishes, which is a car donation program benefiting Make-A-Wish Mid-Atlantic. They offer an easy way to recycle or donate unwanted cars, trucks, motorcycles, SUVs, RVs, or even boats, by turning them into a wish for a local child.

Recycle Non-recyclable Items

Send your difficult to recycle materials, such as candy wrappers and tooth brushes to <u>TerraCycle</u>, an international upcycling and recycling company that collects difficult-to-recycle packaging and products and repurposes the material into affordable, innovative products.

Complete a Waste and Recycling Inventory

See if you can cut your waste in half! Don't think it's possible? You will be surprised how easy it can be! A waste and recycling inventory can help to determine what might be missing in your recycling habits. Think of your waste basket and garbage can as the destination of last resort - where things go only when there is no other place for them. Make it easy to recycle by having a blue bin or other container handy in the kitchen.

Now for the inventory:

STEP ONE: WHAT'S IN THE TRASH CAN?

- Packaging materials? Most plastic wrapping like bubble wrap and air pillows can be included in the grocery store plastic bag recycling bin.
- Hard plastic packaging? Put in the blue bin
- Food waste? Start composting veggies and fruits.
- Flowers and other organic decorations? Compost them too.
- Light bulbs? Compact fluorescents are considered hazardous waste and should be recycled at the county transfer station, Home Depot, Ace Hardware or Mom's Organic Market (Mom's will take all light bulbs!)
- Christmas light strings? Take them to Ace Hardware to be recycled.
- Batteries? Rechargeable and button batteries go to the property yard, and Mom's Organic Market will recycle all household batteries.
- Wrapping paper and bows? Non-foil paper can be recycled. Have a bag handy for bows to save them and reuse. Next time wrap with recycling and reuse in mind, it'll make a difference!
- Styrofoam packaging? Next time look for products that don't use styrofoam packaging. It isn't recyclable through our city program.
- Clamshell food boxes? Select food items that aren't packaged in them because they aren't recyclable in our city program.

STEP TWO: WHAT'S IN THE BLUE BIN?

- Lots of plastic bottles? Use reusable bottles for your to go water.
- Individual serving size drink containers? Buy beverages in fewer, larger containers.

- Full of newspapers and catalogues? Re-think how much media you can truly read in a week's time and whether there are paper-free alternatives (online newspapers and magazines for example).
- Lots of catalogues and junk mail? Get tips from <u>GlobalStewards.org</u> on going paperless and reducing junk mail sent to your home.
- Making these conscious choices is the quickest way to integrate the three Rs (reduce, reuse and recycle) into your life.

Recycling and Waste Reduction

During the past 35 years, the of waste each person creates has doubled from 2.7 to 4.6 pounds per Waste reduction is the most preferable method of waste management and goes a long way protecting the environment. Responsible waste management involves:

- Reduction of waste (consume and away less)
 of waste materials
- Recycling of goods products made from recycled



These actions save money and reduce greenhouse gas emissions by decreasing the consumption of raw materials and energy used during manufacturing, transportation and disposal.



Reduce & Reuse

The most effective way to reduce waste is to not create it in the first place. Information on the benefits and basics of reducing and reusing and what steps you can take to reduce your waste.



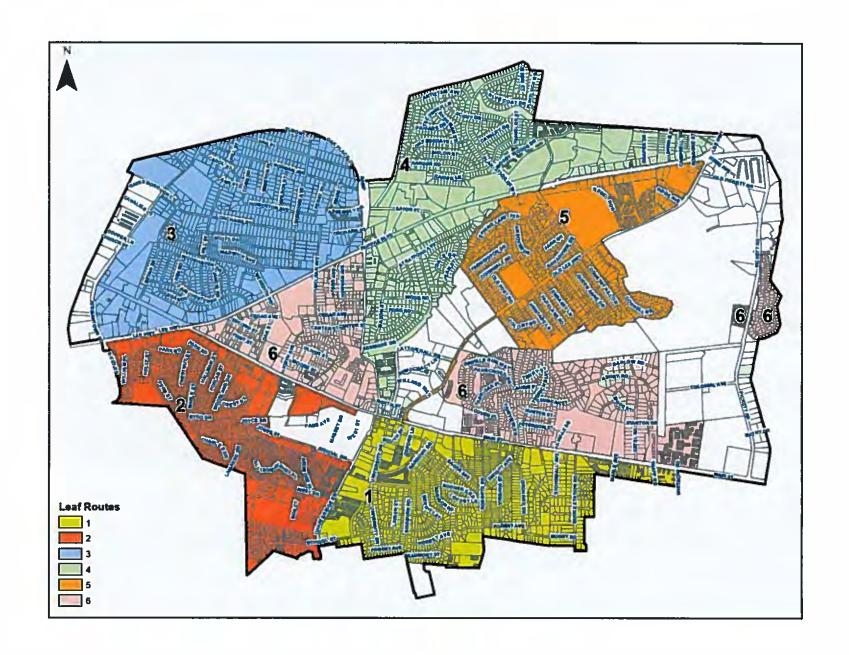
Recycling and Waste Services

Information on curbside recycling, waste management, leaf collection, hazardous waste disposal, electronics recycling and business and multi-family recycling.



Spring Cleanup Program

Information on the annual Spring Cleanup Program.

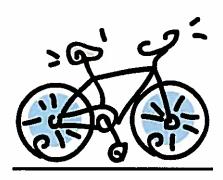


Hello Neighborhood Recycling Coordinators and Civic Leaders,

You are receiving this email because you are either your neighborhood's recycling coordinator or the leader of your civic or homeowner association. The City's neighborhood recycling coordinators are asked to promote recycling, answer questions and motivate our neighbors to keep up the good work.

Recycl-e-mails are sent out by the City of Fairfax as part of its efforts to support you, the City's Neighborhood Recycling Coordinators. Each email contains recycling information available for you to share with your neighbors through your association newsletter or email group.

If you have recycling ideas, success stories to share, or know a neighbor who goes the extra mile, please send them to me (<u>Stefanie.Kupka@fairfaxva.gov</u>, 703-385-7816. Please also send me email address updates or if you'd like to add anyone to the mailing list. Please share the information below. Thank you for your continued support!



Bicycle Recycling

Do you have old bicycles in your garage or basement that could be donated to help those less fortunate that cannot afford a bike. Bikes of the World is an organization focused on making quality used bicycles and parts affordable and available to lower income people in developing nations. This organization also helps to train people to repair bicycles so that they may gain employment in this field.

If you have a bicycle to donate you can drop it off at Spokes, 10937 Lee Highway, in the City of Fairfax. Other drop-off locations and more information on Bikes of the World can be

found at: http://www.bikesfortheworld.org/. Bikes of the World asks for a \$10 donation per bike to help with the costs of transporting the bicycles to other Countries.

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.....



Carton Recycling

- More than 45% of households within the United States now have access to carton recycling as
 they are quickly becoming the packaging of choice.
- There are two types of cartons, those found in the refrigerator (gable-top) featuring products like
 milk, cream, and egg cartons as well as those found in the pantry (aseptic) housing products such
 as broth, soymilk and wine.
- Upon recycling, be sure to practice good recycling etiquette by removing plastic lids, caps and straws as well as rinse out your empty cartons. Within the City of Fairfax, plastic lids and caps may be recycled with other plastics. Straws, however, are not recyclable.
- Once the cartons have gone through the recycling process, new, reusable products may be created
 from the remaining paper fibers such as office paper, facial and toilet tissue, paper towels and
 even building materials.
- By recycling your cartons, not only are you benefitting the environment by practicing sustainability, but also your community by generating revenue from the savings received due to a reduction in landfill tipping fees.
- The formation of carton packaging requires fewer natural resources, therefore, transportation
 costs for these materials reduces fuel consumption and greenhouse gas emissions.

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Please share the information below with your neighbors through your association newsletter or email group. Thank you for your continued support!



Going Green in 2014!

What are your New Year's resolutions for 2014? Kick off the New Year right by reducing, reusing, recycling, and promoting a more sustainable year! Check out these tips to add to your resolutions:

- Learn more about what can be recycled in the City of Fairfax. Download the recycling guide and learn more at http://www.fairfaxva.gov/recycling
- Running out of room in your blue recycling bin? Request extra recycling bins from the City of Fairfax. Get as many as you need for FREE by contacting David Ray (703-385-7837 or dave.ray@fairfaxva.gov). You can also purchase a large roller recycling cart from a local hardware store or make your own recycling container by spray painting "Recycle" on a regular trash can/roller cart.
- Reduce the amount of waste created from packaged goods by buying products that use minimal
 packaging or the packaging itself is recyclable.
- As you receive gifts throughout the year, make room for them by donating old personal belongings to a charitable organization such as The Salvation Army or Goodwill Industries.
- Join the movement to reduce take out restaurant waste by bringing your own reusable containers
 and cutting back on unnecessary packaging such as plastic cutlery, napkins and straws. Did you
 know that on average, Americans alone throw enough paper bags and plastic cutlery each year to
 circle the equator 300 times? For more information, please visit: http://www.takeoutwithout.org/

When shopping for various household items, begin to buy products that are "cradle to cradle" certified. The Cradle to Cradle Products Innovation Institute assesses products on five categories—renewable energy, clean water, material health, social responsibility and material reutilization. For more information visit: http://c2ccertified.org/

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If you have recycling ideas, success stories to share, or know a neighbor who goes the extra mile, please send them to me (<u>Stefanie.Kupka@fairfaxva.gov</u>, 703-385-7816). Please also send me requests for email address updates, removals or if you'd like to add anyone to the mailing list.

Happy New Year!

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Holiday Waste Reduction and Recycling Tips

It's the most wonderful time of the year! The holidays are an especially opportune time to reduce waste and recycle given that a large percentage of waste occurs during this time. Did you know that Americans throw away 25% more trash between the weeks of Thanksgiving and New Year's than during any other time of year?

There are many different ways you can reduce, reuse, and recycle during the holiday season. Here are some easy tips to incorporate into your holiday traditions:

- When you're out at the mall or grocery shopping, use reusable bags instead of plastic shopping bags. If you forget them, try to avoid using plastic bags when making small or oversized purchases.
- Recycle old and broken holiday light strings at the City of Fairfax's ACE Hardware store. The
 ACE Hardware program recycles the old lights and donates proceeds to families of children with
 cancer. For more information visit: http://www.lightsforlifeinc.com/
- Use gift bags, baskets or bows that can be used year after year instead of wrapping paper. If you
 love to wrap, consider using newspapers, magazines, or even the brown paper bags from the store
 to wrap your gifts.
- Roughly 2.6 billion holiday cards are sold every year in the United States. That's enough to stack
 an entire football field with 10 stories of holiday cards. Try sending electronic holiday cards
 whenever possible. If all the families in the nation reduced their mailing list by just one card, we
 would save over 50,000 cubic yards of paper.
- For gifts that require batteries, get rechargeable batteries. This greatly reduces the amount of
 potentially hazardous materials associated with the disposal of regular batteries and saves money
 in the long run.
- Instead of throwing away unwanted gifts, donate them to a local charity.
- If you use a wood-burning fireplace, save your ashes for your compost bin. Cold wood ashes are
 great for adding valuable nutrients in your compost for your garden.

Remember to tree-cycle! Once the holidays are over, consider giving your live trees, garland and
wreaths a chance to keep on working: place them at the curb in January. Live greenery is taken to
the Fairfax County landfill to be made into mulch, which is available to city residents while
supplies last.

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Green Halloween Tips

Halloween is one of the best holidays for the whole family to have fun, create a few spooks, and be more environmentally friendly. Check out the following tips:



- Buy organic, locally-grown pumpkins.
- After the holiday is over throw your Jack-o'-lantern into your compost pile.
- Don't dump those pumpkin seeds after carving. Clean, salt and roast them for a real treat!
- When trick-or-treating take a reusable bag instead of a plastic one and reuse it from year to year.
 - Try swapping costumes with friends and neighbors.
- Make your own costumes from old clothes and other items you already have around the house.
- Donate your costume or clothing from which they were made to day care centers, homeless shelters, or charitable organizations.
- Instead of throwing away your Halloween decorations each year, store and reuse them
 year after year
- Use reusable and recyclable materials to create your Halloween decorations. For
 example, bed sheets hung from the ceiling or tree branches make great ghosts, for
 example, and can be taken down, laundered, and returned to the linen closet when
 Halloween is over. For more ideas, go to: http://tipsforrecycling.com/2012/10/28/tips-for-recycling-recycled-halloween-crafts-and-decorations/

- Choose treats that use little or no packaging that is produced using fossil fiels and cannot be recycled. Whenever possible, buy locally produced treats from local merchants.
- Recycle your used candy wrappers with Terracycle (only certain brands are accepted). For more information go to: http://www.terracycle.com/en-US/

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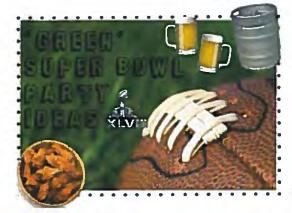
Spring Cleaning

Do you have old lawn chairs, grills, swing sets, car parts, appliances or other metal items that you have been wondering what to do with? The city will pick up these items on your regular household refuse collection day. Please note that doors must be removed from refrigerators and freezers before placing them out for pick-up and don't put items out prior to 24 hours before your collection day.

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Green Super Bowl Party Ideas

After a long, interesting season filled with many broken records and spectacular plays, the Super Bowl is this Sunday!

Did you know that the Metlife Stadium, where the Super Bowl is being hosted this year, has partnered with the Environmental Protection Agency to reduce their environmental impact and become one of the "greenest stadiums in American professional sports"? Learn more at:

http://www.metlifestadium.com/stadium/susta mability

Be sure to make a positive impact in your community as well. If you're throwing a Super Bowl party this Sunday, here are some easy tips to incorporate into your celebration:

- Use reusable plates, cups, silverware, and napkins instead of disposable ones to cut down on
 waste. If you're going to have a large group of people, consider getting your dishes from a local
 rental company. The best part about this is that you can return them when you're done and they'll
 literally do the dishes for you!
- Have separate recycling containers and trash cans ready for quick recycling and trash disposal.
 Print out the City of Fairfax recycling guide (found at http://www.fairfaxva.gov/recycling) and tape it to your recycling bin to help guests know what they can or cannot recycle.
- If you'll be serving beer consider getting a keg or large beer bottles to serve your guests in order to avoid the need for individual glass bottles and/or aluminum cans.
- Serve your guests tap water. Bottled water creates a lot of waste, isn't safer than tap water, is
 expensive to buy and is often just tap water in a bottle.
- If you're planning on using decorations, purchase decorations that are made from recycled
 material or that can be easily recycled or reused. Avoid decorations like confetti and balloons that
 can't be recycled and go straight in the trash when the party is over.
- Make homemade snacks, pizza, or desserts instead of ordering or buying them at the store. It reduces the amount of packaging waste.
- If you have a lot of leftovers, send some home with friends and family in reusable food storage containers to avoid food waste. Donate any untouched food to local food pantries or soup kitchens. Visit Fairfax County's directory for more information:

http://www.fairfaxcounty.gov/HSRG/pages/ServiceSearch.aspx?servicename=donations%20-%20food&ZipCode

When shopping for food or party supplies, don't forget to bring your reusable bags!

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Please share the information below. Thank you for your continued support!



10 Tips for a Sustainable Thanksgiving

- Recycle items used to make your Thanksgiving meal, such as aluminum foil, metal cans, cardboard egg cartons, food boxes, glass/plastic bottles and jars. Download the City of Fairfax's recycling guide at www.fairfaxva.gov/recycling
- 2. Use washable plates, silverware, cups and napkins instead of disposable ones to cut down on
- 3. Purchase cooking items in bulk to save time, money and cut down on excess packaging.
- Decorate your home with natural items, such as leaves, pine cones, gourds, squashes or colored dried corn. All items can be composted after the holiday season.
- Buy organic food from a local farmer. You can search nearby farms at
 http://www.eatwellguide.org/i.php?pd=Home.
 By choosing local/organic foods, you are helping
 to prevent the usage of harmful pesticides and fertilizers and the production of greenhouse gas
 emissions.
- 6. Buy a free range turkey or consider having a meat-free meal. Try a Tofurky or fall-themed vegetarian dish. You'll find lots of good recipes for salads, side dishes and vegetarian entrées at http://www.thedailygreen.com/healthy-eating/green-thanksgiving-44103008

- 7. Serve your guests tap water. Bottled water creates a lot of waste, isn't safer than tap water, is expensive to buy and is often just tap water in a bottle.
- 8. Use reusable containers to store leftovers instead of using materials such as aluminum foil, wax paper or plastic wrap to cut down on waste. You can grab some cheap reusable plastic containers at most stores in a variety of shapes and sizes.
- If you have a lot of leftovers, send some home with friends and family in reusable food storage containers to avoid food waste. Donate any untouched food to local food pantries or soup kitchens.
- 10. Compost scraps of fruit and vegetables. This is an especially great option for someone that has or wants to start a garden at their home with nutrient rich soil. This also helps to limit landfill waste. For more information on composting visit: http://www.epa.gov/osw/conserve/composting/basic.htm

APPENDIX D

Fairfax MS4 Permit Requirements, October 1, 2014



City of Fairfax, Virginia

VSMP GENERAL PERMIT for Small Municipal Separate Storm Sewer Systems Permit # VAR040064

FAIRFAX MS4 PERMIT REQUIREMENTS

October 1, 2014



Public Works - Stormwater 10455 Armstrong Street Room 200 Fairfax, VA 22030

VSMP GENERAL PERMIT for Small Municipal Separate Storm Sewer Systems Permit # VAR040064

Fairfax Stormwater Study October 1, 2014 City of Fairfax

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Five Year Budget Recommendations to Meet Permit Requirements

INTRODUCTION

The State of Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4), VAR04, was issued with an effective date of July 1, 2013. This permit has a five-year term ending June 30, 2018 and outlines tasks to be completed by the City of Fairfax. The Permit requires that the City implement, manage and oversee all provisions of its Storm Water Management Plan (SWMP) in order to control the discharge of pollutants from its municipal storm sewer system associated with stormwater runoff and illicit discharges, including spills and illegal dumping to the maximum extent possible.

Woolpert was hired to provide professional engineering services to assist the City of Fairfax in implementing specific permit requirements and the continuing development and implementation of the City's Storm Water Management Program. Working closely with Christina Alexander, Fairfax's Stormwater Resources Engineer, the firm determined the necessary requirements to be completed. These are separated into six Minimum Control Measures scheduled to be completed each year.

Woolpert has provided assistance for the following Year 1 requirements:

- Illicit Discharge Screening Procedures (MCM 3)
- Identification of Locations Requirement SWPPPs (MCM 6)
- Nutrient Management Plan Locations (MCM 6)
- Training Schedule and Program (MCM 6)
- Annual Report Submittals
- Ordinance and TMDL Review
- Five Year Budget Recommendations to Meet Permit Requirements

The results are summarized below.

ILLICIT DISCHARGE PROCEDURES (MCM 3)

Woolpert has incorporated a potential template in this document for illicit discharge screening procedures, but the IDDE review will be completed by another consulting firm.

IDENTIFICATION OF LOCATIONS REQUIREMENT SWPPPS (MCM 6)

Woolpert researched high priority facilities using the City's GIS records. The only high priority facility identified in the City of Fairfax is the property yard at the public works facility. The yard, covering approximately 11 acres, contains 17 different buildings. A GIS map of this property can be found in Appendix B of this report.

NUTRIENT MANAGEMENT PLAN LOCATIONS (MCM 6)

A GIS analysis was performed to determine all lands owned by the City where nutrients are applied to a contiguous area greater than one acre.

The following properties, including city owned parks, schools, and public works facilities, met the area criteria and will need a nutrient management plan:

Property Name	Acreage (approximate)	Location
Ashby Pond Conservatory Site	4	38°50'52.1"N 77°17'10.3"W
Country Club Hills Commons	8	38°51'41.0"N 77°17'32.9"W
Dale Lestina Park	8	38°52'07.8"N 77°17'48.0"W
Daniels Run Elementary School	14	38°51'08.7"N 77°17'45.0"W
Draper Drive Park	11	38°51'58.1"N 77°17'02.5"W
Daniels Run Park	48	38°51'05.3"N 77°17'09.1"W
Fairchester Woods Park	1	38°51'32.1"N 77°19'15.2"W
Fairfax High School	47	38°51'36.5"N 77°17'10.2"W
Gateway Regional Park	3	38°51'43.8"N 77°16'15.2"W
Green Acres Center	10	38°50'03.6"N 77°18'09.4"W
Jester Property	ī	38°50'25.2"N 77°19'05.9"W
Jester Property	2	38°50'25.2"N 77°19'05.9"W
Kutner Park	10	38°51'24.0"N 77°19'44.5"W
Lanier Middle School	19	38°51'36.6"N 77°19'39.1"W
Pat Rodio Park	4	38°51'12.7"N 77°18'48.2"W
Property Yard	11	38°51'37.3"N 77°16'18.4"W
Providence Elementary School	17	38°51'49.4"N 77°19'33.5"W
Providence Park	17	38°50'21.4"N 77°19'02.8"W
Ranger Road Park	7	38°51'57.0"N 77°17'12.7"W
Ratcliffe Park	3	38°50'36.9"N 77°18'01.4"W
Rebel Run Property	4	38°51'45.5"N 77°17'22.0"W
Shiloh Street Park	6	38°51'49.2"N 77°18'12.6"W
Stafford Drive Park	14	38°51'50.2"N 77°17'29.3"W
Stafford East Park	9	38°51'51.7"N 77°17'25.6"W
Ted Grefe Park	1	38°50'15.2"N 77°17'28.1"W
Thaiss Memorial Park	4	38°51'38.3"N 77°16'10.9"W
Van Dyck Park	10	38°51'13.0"N 77°17'56.6"W
Westmore Elementary School	10	38°50'53.2"N 77°19'39.2"W
Willcoxon Park	1	38°51'50.8"N 77°16'48.6"W

A map of these areas is included in the appendix.

TRAINING SCHEDULE AND PROGRAM (MCM 6)

Woolpert created a training schedule and program, which included determining employees and positions to receive training, as well as a schedule of training events. The training will be based on the biennial training starting in Year 2 (July 1, 2014 – June 30, 2015.) The schedule is located in the appendix of this report.

ANNUAL REPORT SUBMITTALS

Woolpert assisted the City in preparing and submitting the 2013/2014 annual report.

ORDINANCE AND TMDL REVIEW

The City of Fairfax has hired an engineering firm to review their ordinances and to create a TMDL Action Plan, due June 30, 2015, in order to achieve their waste load allocation requirements by the target dates.

FIVE YEAR BUDGET RECOMMENDATIONS TO MEET PERMIT REQUIREMENTS

Since the program itself is still in the developmental stages, budget recommendations will be made as programs become finalized.

SECTION I Illicit Discharge Procedures (MCM 3)

CITY OF FAIRFAX DRY WEATHER SCREENING FOR ILLICIT DISCHARGES GUIDANCE DOCUMENT

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1.0 INTRODUCTION

The State of Virginia National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Regulated Municipal Separate Storm Sewer Systems (MS4), VAR04, was issued with an effective date of July 1, 2013. This second cycle permit outlines tasks to be completed for compliance with the terms and conditions of the federal NPDES program and has a five-year term ending June 30, 2018. The Permit requires that the City of Fairfax implement, manage, and oversee all provisions of its Storm Water Management Plan (SWMP) to control, to the maximum extent practical, the discharge of pollutants from its municipal storm sewer system associated with stormwater runoff and illicit discharges, including spills and illegal dumping.

An understanding of the nature of illicit discharges in urban watersheds is essential to find, fix, and prevent them. This document presents the City of Fairfax's plan for illicit discharge detection and elimination in compliance with NPDES MS4 Permit. The NPDES MS4 Permit requires that the City of Fairfax develop an Illicit Discharge Detection and Elimination (IDDE) program that contains a set of standard investigative procedures to identify the source of illicit connections or discharges and enforce their removal. Although the permit does not specifically dictate these procedures, the IDDE program must, to the maximum extent practical (MEP), increase knowledge of the City's stormwater management system and pollutants of concern.

An <u>illicit discharge</u> is defined by the U.S. EPA on their Illicit Discharge web page (http://www.epa.gov/owow/NPS/ordinance/discharges.htm) as "...any discharge into a separate storm sewer system that is not composed entirely of stormwater, except for discharges allowed under a NPDES permit or waters used for firefighting operations." Typically, illicit discharges enter a storm sewer system either through direct connections, e.g., sanitary sewer piping, or indirectly from cracked sanitary sewer conveyance systems, spills collected by storm drains, or from contaminants dumped directly into a storm sewer inlet. Pollutants from these sources can include heavy metals, toxics, oils and grease, solvents, nutrients, viruses, and harmful bacteria. Substantial levels of these contaminants can damage fish and wildlife habitats, decrease aesthetic value, prevent or eliminate recreational benefits, and more importantly threaten public health.

The field procedures for detecting illicit discharges include:

- Observations at stormwater outfalls for signs of possible contamination from illicit connections,
- Observing the physical characteristics of stormwater outfalls,
- · Performing elementary chemical analysis, and
- Collecting samples for comprehensive laboratory analyses.

The procedures outlined in this guidance document are used to detect illicit discharges. Contact information for the City of Fairfax's Stormwater Management Program can be found on their website: http://www.fairfaxva.gov/government/public-works/environment

The Illicit Discharge Program has two primary components:

1. Dry weather screening program, and

2. Illicit tracking and detection program.

The dry weather screening program is an initial screening process to locate outfalls with dry weather flows and determine if there is an indication that the flow is a potential illicit discharge. The illicit tracking and detection program represents an additional set of investigative and enforcement procedures to be taken once an outfall screened under the dry weather screening program is determined to have a potential elicit discharge.

Dry weather flow or discharge is generally accepted to be flow present after 72 hours with less than a tenth of an inch of precipitation. The presence of dry weather flow does not necessarily indicate the presence of an illicit discharge. Many dry weather flows, including those listed below as the non-stormwater discharges allowed by the City of Fairfax, are typically considered allowable dry weather discharges.

Also included are any discharges specified in writing by the City of Fairfax as being necessary to protect public health and safety. Dye testing is an allowable discharge, but requires notification to the authorized enforcement agency prior to the time of the test. The prohibition does not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the EPA or VADEQ, provided that the discharger is in full compliance and written approval has been granted.

2.0 SELECTION OF INDICATOR PARAMETERS

1.0 2.1 CHEMICAL PARAMETERS

The U.S. EPA and recommend testing for the following parameters to detect the major pollutants found in stormwater runoff from major land use categories:

- pH
- Temperature
- Copper
- Phenols
- Surfactants
- Chlorine

It is also recommended to test for the pollutant of concern (POC) for outfalls discharging to impaired waters or within a TMDL watershed.

<u>pH</u>

The normal pH of ground water typically ranges from 6.0 to 9.0. Values outside of this range may be an indicator of an illicit discharge. pH alone is not a sufficient indicator of an illicit discharge and is only considered in relation to other parameters that are out of range for a particular sample. Water with pH values less than 6.0 is acidic and may indicate discharges from textile mills, pharmaceutical manufacturers, metal fabricators, and companies that produce resins, fertilizers, or pesticides. Wastes containing sulfuric, hydrochloric, or nitric acids are a common source of contamination. Water with pH values greater than 9.0 is alkaline and may indicate discharges from industries such as textile mills, metal plating facilities, steel mills, ready mix concrete plants (including concrete truck wash out areas), and producers of rubber and plastic. Wash water used to clean floors and industrial machinery may also produce alkaline wastewater.

Water Temperature

Water temperature can vary widely and this parameter is best considered in relation to other characteristics. Any extreme temperatures (hot or cold) may indicate the presence of an illicit discharge. Extremely warm temperatures can be indicative of industrial or sanitary sewer discharges.

Copper

Elevated levels of copper may indicate discharges from cooling, boiler, or industrial recirculation systems. Copper sulfate is typically used as an algaecide in all of these systems. Copper can also be an indicator of discharges from an automobile manufacturing or maintenance facility. The normal/allowable sampling range for copper is 0.0 - 0.5 mg/L.

Phenols

Elevated levels of phenols may indicate industrial wastewater discharges such as those from plastics production, pharmaceuticals, and also herbicides. Consider phenols in relation to

other parameters in determining the potential source. The normal/allowable sampling range for phenols is 0.000 - 0.399 mg/L.

Surfactants/Detergents

Typically, the presence of surfactants and detergents indicate a connection to either an automobile wash facility or a laundry facility. High surfactants/detergents combined with elevated temperatures are a good indicator of commercial or institutional laundry facilities. Lower levels of surfactants/detergents may indicate a connection to a residential laundry, industrial facility, or possibly an illicit sewer connection or failing/improperly functioning septic system. A normal range is 0.0 - 0.5 mg/L. Regardless of the results, however, there should be no persistent visible foam at the discharge.

Chlorine

The absence of chlorine may indicate a natural water source. However, due to chlorine's ability to quickly dissipate with exposure to ultra violet light (UV), use caution when making judgments based on its absence. Generally, only potable water sources contain chlorine. Therefore, the presence of chlorine indicates that the source is not a natural water source. Very high levels (above 5.0 mg/l) of chlorine typically indicate connection to a swimming pool or other potable water source. A normal range is 0.0 - 0.5 mg/L.

Table 5 in Appendix C lists additional chemicals that may be associated with a variety of industrial activities. If the industrial activities in an outfall watershed are known, it may be possible to examine the dry-weather (non-stormwater) outfall flow for specific chemicals to identify which industrial activities may be responsible for the dry-weather flow.

2.0 2.2 PHYSICAL PARAMETERS

The detection of a variety of other parameters during the physical inspection can be useful indicators of outfall problems. The following is a description of these physical parameters:

Odor

The odor of stormwater discharges will vary widely. Odor can be a good indicator of the type of pollutant in the water. For instance, stormwater discharges may smell like sewage, oil, gasoline, or may contain a chemical smell. Decomposition of organic materials can also cause a distinctive sulfur odor. Odors may vary greatly with changes in temperature and time of year.

Color

Color can be an important factor in determining the source of an illicit discharge. The particular color should be noted and tracked upstream as far as possible. Sewage will typically have a gray or brown color, whereas industrial wastes may have a variety of colors.

Turbidity

Turbidity is a measure of the amount of suspended matter in the water and affects the clarity of the discharge. Discharges from industrial facilities are often highly turbid. Although erosion can also create highly turbid water, this should not be the case during dry weather flows.

Each inspection should note the relative degree of turbidity.

Oil Sheen

An oily sheen on water near a storm water outfall can be an indicator of illicit discharges from petroleum refineries, storage facilities, vehicle service facilities including vehicle wash facilities, and/or dumping of used oil products into the MS4.

Floatables

Floatables are solids and liquids that float on the surface of the water. Floatables may include substances such as animal fats, food products, trash, oils, plant materials, solvents, foams, hydrocarbons, or gasoline. Floatables can often lead directly to the manufacturing process or other source of the illicit discharge. A full description of the type and quantity of the floatables and a photograph of the discharge should be included in the report.

Residue

Residue left on the conveyance system can be an indicator of an illicit discharge. Discoloration of the pipe or channel should be tracked upstream. It is also important to note the location of the discoloration or stain within the conveyance system. For example, is it just a line of residue half way up the pipe or is the pipe completely stained for some depth? Harmful and excessive growths of algae are generally caused by excessive nutrients.

Sediment/ Debris

Excessive sediment and debris near a stormwater outfall can be indicative of construction site runoff problems.

Vegetation

Vegetation growing in the immediate discharge area should be noted in relation to vegetation growing in the general vicinity of the outlet. Certain discharges can cause substantial changes in plant growth. Discharges containing a high nutrient content may cause increased growth while discharges with severe changes in pH may cause a decrease in growth. Although vegetation patterns may serve as an indicator of non-stormwater discharges, they are also difficult to interpret. Time of year, rainfall patterns, and exposure to sun all affects plant growth and may be contributing factors to the changes in vegetation patterns. Caution should be used when considering vegetation as an indicator of an illicit discharge.

Structural Damage

Like residue, structural damage to the conveyance system can also be an indicator of an illicit discharge. Structural damage is typically more noticeable in concrete pipes. Acidic discharges may cause cracking, spauling, or deterioration of the concrete. The location of the damage within the pipe and the distance upstream will be important in determining the type of pollutant and the source of the discharge.

Temperature

Water temperature that varies greatly from the ambient air temperature is a good indicator

that there is an illicit discharge to the system.

The types of illicit discharges that can be identified through visual identification and physical data include:

- Sanitary sewer overflows/leaks;
- Broken manholes;
- Septic tank leaks;
- Gray water discharges from residences;
- Erosion and sediment control problems;
- Public dumping of trash; and
- Unnatural volume, temperature, color or odor issues involving drainage flows.

Table 2 in Appendix C describes the physical observation parameters and the potential associated illicit flow sources.

3.0 DRY WEATHER FIELD SCREENING

The Standard Operating Procedure (SOP) in Section 3.1 outlines the procedures for Dry Weather Screening. The Illicit Tracking Program is composed of an additional set of investigative procedures to be conducted once a potential illicit discharge is identified under the dry weather screening program.

XXXXXXX is a VADEQ certified analytical laboratory in Fairfax, Virginia. XXXXXXX will provide sample containers and analyses for the Dry Weather Screening and Illicit Tracking.

3.0 3.1 DRY WEATHER SCREENING STANDARD PROCEDURES

Dry weather field screening is the examination of dry weather discharge from outfalls to attempt to determine if the discharge is allowable or if it is a potential illicit discharge. Dry weather field screening includes the documentation of the physical parameters of a discharge and may include chemical analysis as well. Dry weather field screening can either be done in conjunction with outfall inventory or separate from an outfall inventory if the locations of discharge points are already available. Conduct dry weather screening at least 72 hours after a storm event greater than 0.1 inch. The creeks/streams are traversed and channels and pipes are located and screened. Dry weather flows must be screened two times with the second screening occurring at least 4 hours but no more than 24 hours after the first.

The following procedures should be used to screen outfalls for dry weather flow:

- 1. Crews should be familiar with the job hazards associated with dry weather screening and illicit tracking. Refer to Appendix B for OSHA and job safety information before starting work.
- 2. Use appropriate Personal Protective Equipment (PPE) when collecting samples.
- 3. Prepare for screening activities. Crews should have:
 - a. PPE such as gloves, safety glasses or goggles, boots, snake chaps, etc. Wear a new set of nitrile gloves at each location a sample is taken to eliminate the possibility of cross contamination. (Persons with latex allergies should use latex-free gloves).
 - b. Calibrated handheld unit for measuring pH/temperature.
 - c. Sample bottles for all parameters (in case a dry weather discharge is found).
 - d. Chain of custody forms for any samples to be run by XXXXXXX. (Be sure to retain a completed copy for the City of Fairfax.)
 - e. Dry Weather Screening/ Potential Illicit Discharge Field Sheets.
 - f. Cooler with ice for sample storage.
- 4. Screen outfalls for dry weather flow (screen at least 72 hours after a storm event of 0.1 inch).
 - a. If there is no flow present at the outfall, it is considered dry and no further immediate action is necessary.
- 5. If an intermittent discharge is observed from the outfall, the MS4 Permit requires that it be rechecked at least three times to to observe the discharge while it is flowing. In the case of intermittent discharges, an outfall is considered dry when there

have been non-flowing conditions on three separate visits. Since this is an ongoing program, it is recommended that suspected intermittent discharges be periodically rechecked.

- 6. If there is dry weather flow then the outfall needs to be sampled.
 - a. Collect information for physical characteristics on the Dry Weather Screening/ Potential Illicit Discharge Field Sheet (located in Appendix A) or an approved digital field data collection method. Record (at a minimum) the following information for the physical characteristics:
 - i. Inspection date and time
 - ii. Site description
 - iii. Outfall size
 - iv. Outfall condition
 - v. Presence or absence of flow
 - vi. Discharge color
 - vii. Discharge odor
 - viii. Presence and type of floatables
 - ix. Discharge turbidity (visual not measured)
 - x. Deposits/stains
 - xi. Vegetative condition
 - b. Measure pH and temperature at a flowing outfall using a handheld meter or a thermometer and pH paper. For the Hach SensION pH electrode, use the procedure in Appendix E. To calibrate and operate an equivalent instrument, refer to the instruction manual for procedure. Measure pH samples within 15 minutes of sample collection.
 - c. Measure Chlorine using a spectrophotometer, handheld meter, or test paper.Refer to Appendix F for the procedure to measure chlorine using the Hach DR2800 Portable Spectrophotometer. If using an equivalent meter, refer to the instruction manual for procedure. Analyze Chlorine samples within 15 minutes of collection.
 - d. Determine the best area of the discharge to collect samples. An ideal sample is one that is representative of the entire flow (e.g. in the middle of the discharge) and that can be collected without interference from objects or debris in the flow. Avoid entraining leaves, floatable debris, and sediment when collecting samples.
 - e. Place the sample bottle directly into the stream, taking care not to touch the inside of the lid or bottle. Be careful to limit the amount of discharge entering the bottle as to not overfill or create splash when filling. Fill the bottle with the sample to the designated sample fill line (if specified) or to the top. Cap the bottle immediately.
 - f. Collect samples in laboratory supplied bottles for Copper, Phenols, Detergents/Surfactants and Fecal Coliform. (Refer to Appendix B for diagrams and information on proper sample collection techniques).
 - i. Using a permanent marker, fill out the label on the sample bottle with any required information.

- ii. Sample collection for Fecal Coliform: (See Appendix B for information and examples). Be careful not to touch the inside of the bottle or lid during sample collection. The inside of the bottle must remain sterile beforehand and uncontaminated afterwards. Take care in re-capping. Note the fill line on the bottle - do not overfill. The vessel also contains a preservative that must remain in the bottle. Take precautions not to overfill the bottle and lose the preservative tablet or powder. Fecal Coliform sample bottles must be delivered to the lab within 6 hours of sample collection on ice.
- iii. After any screening activities have ended, deliver the samples to the lab within the given holding times (if applicable) and on ice (if applicable). Fill out the chain of custody form (see Appendix D) with sample information.
- iv. The lab will check all sample bottle labels and chain of custody forms for completion and accuracy. Keep a copy of the chain of custody form for the City's records.
- g. Return to the discharge between 4 and 24 hours later to obtain a second sample; repeat steps a-f.
- h. Repeat these dry weather screening procedures for all designated outfalls.
- 7. After the initial sample has been collected, use physical observations and chemical test results to determine if the discharge is illicit in nature. If dry weather screening suggests a potential illicit discharge, then attempt to track the illicit upstream to its source..

4.0 3.2 DATA MANAGEMENT

All dry weather screening will be collected and recorded in accordance with the Dry Weather Screening/ Potential Illicit Discharge Field Sheet shown in Appendix A. This data may be collected using hard copy paper, or may be collected in a GIS based database, similar to an ESRI Geodatabase, or other digital data collection device.

4.0 CITIZEN COMPLAINTS

The City of Fairfax operates a website for disseminating information to its citizens. Contact information for the department are listed, as well information on general stormwater issues. Any complaints that are sent in writing or by phone are logged by stormwater staff and addressed as necessary.

In addition, the City of Fairfax shall provide IDDE program information to its citizens via the City's website and in pamphlet form.

5.0 Resources

- 1. Brown, Edward, Caraco, Deb, and Pitt, Robert. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. USEPA. Washington, DC, 2004.
- 2. Van der Leeden, Frits, Fred L. Troise and David Keith Todd. <u>The Water Encyclopedia</u>. Lewis Publishers. Chelsea, Michigan. 1990.
- 3. USEPA. 1993b. Investigation of Inappropriate Pollutant Entries into Storm Drain Systems A User's Guide. EPA 600-R-92-238. Washington, D.C.
- 4. Ventura Countywide Stormwater Quality Management Program. 18 Jan. 2011. 18 Jan. 2011 http://www.vcstormwater.org/.
- 5. State of Washington Department of Ecology. 18 Jan. 2011. 18 Jan. 2011 http://www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html.
- 6. USEPA. 11 April 2011 http://www.epa.gov/owow/NPS/ordinance/discharges.htm
- 7. City of Fairfax VA MS4 permit. 1 July 2013

APPENDIX A: DRY WEATHER SCREENING / POTENTIAL ILLICIT DISCHARGE FIELD SHEET



POTENTIAL ILLICIT DISCHARGE FIELD SHEET

Section 1:	Backg	round Data						
Coccription /	Locati	ion of Suspected II	ilicit Discharge:					
Date of Obser	rvation:		1	Timo:				
Name (s) of In	nvest.1ga	ator(s):						
Has it rained	d over 0	0.10 in. in the las	st 72 hours7	Yes	□ po			
Industrial Oltra-Orba Suburban R Commercial	l an Reside Resident:	tial		Institution Open Space Boods Other: Enown Industri				
		of outfall, If kno						
Section 2:		marge Structure	the latest terms and the latest terms are not to the latest terms and the latest terms are not to the latest terms	nery.	DOMESTICAL			
Closed Pipe Closed Pipe Channel Channel To Flow Present?		RCP CMP PVC RDPE Steel Other: Concrete Rarthen Rip-Rap Other: Factor Rarthen Rip-Rap Concrete Rarthen Rip-Rap Concrete Rarthen Rarthen	Box Other: Other: Parabolic Other: Other: Noderate Substan	Single Dooble Triple Other:	Elliptical Pipe Cimensions: Winth: Beight: Dapth: Top Width: Bottom Winth:	ft.		
		dicators present in	for Flowing Ou	Yes No	(If No, Ski	ip to Section 4)		
Odor	0		☐ Rancid/sour ☐ Potroloum/gas	1 - Faint	2 - Easily detected	3 - Noticeable from a distance		
Color	0	Cray Creen	Brown Yallow Orange Other:	1 - Faint colors	2 - Schowhat visible	3 - Clearly visible		
Turbidity		Soo severity	,	1 - Slight cloudiness	2 - CLoudy 3 - Opaque			



POTENTIAL ILLICIT DISCHARGE FIELD SHEET

Section 3:	bpAaro	.a.: "	Indicators for Flow	ring Cutfalis	Oula (Confirm	20 PROM PREVIOUS PAGE)
Indicaton	if Present		fathChilerton		BELATIVE SEVERIT	Y MINEX (1-3)
Floatables (Does Not Include Trash)		□ s	Sewage (Toilet Paper, str.) Sods Petroleum (cil sbeen) Other:	1 - Fow or slight; origin not obvious Comments:	2 - Some; indications of origin [a.g., possible suds oil sheen) Comments:	oil sheen, suds, or
a-tion A	physic:	1007	1 for Both	The and	Floring Dis	Structures
			ndicators for Both at are not related to El			(If No. Skip to Section 5)
INDICATOR	CHACH	KM	The state of the s	instanting		COMPANY
Discharge Structure Damage	٥		Spailing, Cracking Corrosion	or Chipping	Poeling Paint	
Deposits / Stains	0		City Flow Line	Paint Oth	er:	
Abnormal Vegetation			☐ Excessive ☐ Inhi	inited		
Poor pool quality			Odors Colors Suds Racessi		e 📑 Oll Shown	
Pipe benthic growth			Brown Crange			
			scharge Characteriz			
Obvious	1,000		tial(presence of two indicators with a se-		tors)	a
Comments;		_				
	Scn-Illi	cit	Discharge Concerns (a.g., illegal :	d≔ping, spills,	trash or needed repairs)
Comments:						
Section 7:	General	Coz	ments			
Comments:		<u> </u>				
	Reporti	ng I	Information	111		
Comment s‡					Date Obser Time Obser	
Investigated	by:				Date Inves	31 - 32
		argo	reported to SCOHEC7	Yes D	No Date Repor	rtod: //

APPENDIX B: STORMWATER SAMPLING TECHNIQUES AND OSHA STANDARDS/ FIELD SAFETY

Stormwater Sampling Techniques and Information

- 1. Sample containers should be stored inside at room temperature when not in use.
- 2. Note that containers for certain parameters contain preservatives. Handle preserved containers with caution, as preservatives may be an acid (e.g. hydrochloric, nitric). When sampling, take measures to ensure that no preservative is lost during sample collection.
- 3. Always wear protective gloves when collecting stormwater samples. Wear new gloves at each sample location to eliminate cross contamination. Safety glasses should also be worn to protect the eyes while collecting samples. If using or mixing chemicals, safety goggles should be worn to protect the eyes from inadvertent splashing of chemicals or samples.
- 4. Always collect a sample in an area of representative flow (e.g. in the middle of the stream or discharge). When possible, fill the container directly from the flow without touching the lip of the bottle to anything in the surrounding environment.
 - a. Unless you are purposely sampling stagnated water, do not collect a sample in a stagnant area of the water body.
 - b. Do not touch the inside of any bottles or lids. Take precautions to avoid splashing or other contamination when sampling.
- 5. When sampling from a pool, be careful not to disturb any sediment if you must dip a container into the water. For containers that contain preservative, it is best to fill them using another, non-preserved container. See the examples below.





Photo (left) courtesy of Ventura Countywide Stormwater Management Program Website and (right) The State of Washington Department of Ecology website

- 6. After collection, the sample should be placed in an ice filled cooler. All samples have associated holding times; coordinate with laboratory staff to ensure that samples are returned to the lab, on ice, in time to be analyzed.
- 7. Fill out a chain of custody form with sample name or location, number, date, time, and other pertinent information. Always retain a copy for the City of Fairfax. A chain of custody form is located in Appendix D for reference.

5.0 OSHA STANDARDS/ FIELD SAFETY

It is important to remember that any type of fieldwork, including dry weather screening and illicit discharge tracking, can be hazardous. Field crews will be exposed to the elements in varying types of terrain. Common hazards include extreme heat/cold, wildlife (snakes and insects), hazardous waste materials of unknown origins (sanitary wastewater, chemicals, etc.), and potentially dangerous objects and situations (rocks, deep water, manhole lids, confined spaces). Employees should be current on their Bloodborne Pathogens training and have been vaccinated for Hepatitis A and B. A current tetanus vaccination is also recommended.

In order to ensure the safety of field crews, all employees in the field should work as a team of two (or more). Crews should always carry a cell phone or other means of communication and should let a member of management know their daily itinerary. Crews should wear high visibility clothing, long pants, and if appropriate, safety glasses or goggles, snake chaps, and/or safety shoes.

Due to the nature of dry weather screening and illicit discharge tracking, field crews will often encounter circumstances that involve confined spaces. Occupational Safety and Health Administration (OSHA) regulates confined space entry. A confined space is/has:

- Limited or restricted means of entry or exit,
- · Large enough for an employee to enter and perform assigned work, and
- Is not designed for continuous occupancy by the employee.

Because of the hazards associated with confined space entry, crews should not enter confined spaces. OSHA governs that confined space entry only be performed by certified individuals using prescribed equipment and procedures. At no time should any field crews enter a confined space. This includes manholes, storm drains, storm drainage tunnels, culverts, and pipes. If confined space entry is necessary, crews should consult with a member of management, who can then contact the appropriate City staff members. More information on confined space procedures and regulations can be found on the United States Department of Labor OSHA web page at www.osha.gov/index.html.

APPENDIX C: CHARACTERISTICS OF POTENTIAL ILLICIT DISCHARGE SOURCES

Table 1. Examples of Chemical and Physical Properties of Industrial Non-Stormwater Entries into Storm Drainage System

Industrial Categories Major Classifications SIC Group Numbers		Ödor	Color	Turbidity	Floatables	Debris and Stains	Damage to Outfell Structures	Vegetation	pH	Total Djasolved Solids		
Primary Industries												
201	Meat Products	Spoiled Meats, Rotten Eggs and Flesh	Brown to Reddish Brown	High	Animal Fats, Byproducts, Pieces of Processed Meats	Brown to Black	High	Flourish	Normal	High		
202	Dairy Products	Spoiled Milk Rancid Butter	Gray to White	High	Animal Fats, Spoiled Milk Products	Gray to Light Brown	High	Flourish	Acidic	High		
203	Canned and Preserved Fruits and Vegetables	Decaying Products Compost Pile	Various	High	Vegetable Waxes, Seeds, Skins, Cores, Leaves	Brown	Low	Normal	Wide Range	High		
204	Grain Mill Products	Slightly Sweet and Musty Grainy	Brown to Reddish Brown	High	Grain Hulls and Skins, Straw & Plant Fragments	Light Brown	Low	Normal	Normal	High		
205	Bakery Products	Sweet and or Spoiled	Brown to Black	High	Cooking Oils, Lard, Flour, Sugar	Gray to Light Brown	Low	Normal	Normal	High		
206	Sugar and Confectionery Products	N/A	N/A	Low	Low Potential	White Crystals	Low	Normal	Normal	High		
207	Fats and Oils	Spoiled Meats, Lard or Grease	Brown to Black	High	Animal Fats, Lard	Gray to Light Brown	Low	Normal	Normal	High		
208	Beverages	Flat Soda, Beer or Wine, Alcohol, Yeast	Various	Moderate	Grains and Hops, Broken Glass, Discarded Canning Items	Light Brown	High	Inhibited	Wide Range	High		
21	Tobacco Manufacturers	Dried Tobacco, Cigars, Cigarettes	Brown to Black	Low	Tobacco Stems and Leaves, Papers and Fillers	Brown	Low	Normal	Normal	Low		
22	Textile Mill Products	Wet Burlap, Bleach, Soap, Detergents	Various	High	Fibers, Oils, Grease	Gray to Black	Low	Inhibited	Basic	High		
23	Apparel and Other Finished Products	NA	Various	Low	Some Fabric Particles	N/A	Low	Normal	Normal	Low		

Industrial Categories Major Classifications SIC Group Numbers		Odor	Color	Turbidity	Floatables	Debris and Stains	Damage to Outfall Structures	Vegetation	pH	Total Dissolved Solids
<u>Material N</u>	Manufacturers									
24	Lumber and Wood Products	N/A	N/A	Low	Some Sawdust	Light Brown	Low	Normal	Normal	Low
25	Furniture and Fixtures	Various	Various	Low	Some Sawdust, Solvents	Light Brown	Low	Normal	Normal	Low
26	Paper and Allied Products	Bleach, Various Chemicals	Various	Moderate	Sawdust, Pulp Paper, Waxes, Oils	Light Brown	Low	Normal	Wide Range	Low
27	Printing, Publishing, and Allied Industries	Ink, Solvents	Brown to Black	Moderate	Paper Dust, Solvents	Gray to Light Brown	Low	Inhibited	Normal	High
31	Leather and Leather Products	Leather, Bleach, Rotten Eggs or Flesh	Various	High	Animal Flesh and Hair, Oils & Grease	Gray to Black, Salt Crystals	High	Highly Inhibited	Wide Range	High
33	Primary Metal Industries	Various	Brown to Black	Moderate	Ore, Coke, Limestone, Millscale, Oils	Gray to Black	High	Inhibited	Acidic	High
34	Fabricated Metal Products	Detergents, Rotten Eggs	Brown to Black	High	Dirt, Grease, Oils, Sand, Clay Dust	Gray to Black	Low	Inhibited	Wide Range	High
32	Stone, Clay, Galss, and Concrete Products	Wet Clay, Mud, Detergents	Brown to Reddish Brown	Moderale	Glass Particles, Dust from Clay or Stone	Gray to Light Brown	Low	Normal	Basic	Low

Industrial Categories Major Classifications SIC Group Numbers		Ollor	Color	Turbiditý	Floatabjes	Debris and Stains	Damage to Outfall Structures	Vegetation	Hq	Total Dissolved Solids		
Chemical Manufacturer												
2812	Alkalies and Chlorine	Strong Halogen or Chlorine, Pugnent Burning	Alkalies - N/A Chlorine - Yellow to Green	Moderate	Glass Particles, Dust from Clay or Stone	Gray to Light Brown	Highly Inhibited	Normal	Basic	Low		
2816	Inorganic Pigments	N/A	Various	High	Low Potential	Various	Low	Highly Inhibited	Wide Range	High		
282	Plastic Materials and Synthetics	Pugnent, Fishy	Various	High	Plastic Fragments, Pieces of Synthetic Products	Various	Low	Inhibited	Wide Range	High		
283	Drugs	N/A	Various	High	Gelatin Byproducts for Capsulating Drugs	Various	Low	Highly Inhibited	Normal	High		
284	Soap, Detergents, & Cleaning Preparations	Sweet or Flowery	Various	High	Oils, Grease	Gray to Black	Low	Inhibited	Basic	High		
285	Paints, Varnishes, Lacquers, Enamels and Allied Products (SB- Solvent Base)	Latex-Ammonia, SB Dependent upon Solvent (Paint Thinner, Mineral Spirits)	Various	High	Latex - N/A, SB - All Solvents	Gray to Black	Low	Inhibited	Latex- Basic, SB-Normal	High		
2861	Gum and Wood Chemicals	Pine Spirits	Brown to Black	High	Rosins and Pine Tars	Gray to Black	Low	Inhibited	Acidic	High		
2865	Cyclic Crudes, & Cyclic Intermediates, Dyes, & Organic Pigments	Sweet Organic Smell	N/A	Low	Translucent Sheen	N/A	Low	Highly Inhibited	Normal	Low		
2873	Nitrogenous Fertilizers	N/A	N/A	Low	N/A	White Crystalline Powder	High	Inhibited	Acidic	High		

	trial Categories Major sifications SIC Group Numbers	Odor	Color	Turbidity	Floatsbies	Debris and Stains	Damage to Outfall Structures	Vegetation	рН	Total Dissolved Solids
ransport	ation and Construction									
15	Building Construction	Various	Brown to Black	High	Oils, Grease, Fuels	Gray to Black	Low	Normal	Normal	High
16	Heavy Construction	Various	Brown to Black	High	Oils, Grease, Fuels, Diluted Asphalt or Cement	Gray to Black	Low	Normal	Normal	High

	trial Categories Major sifications SIC Group Numbers	Odor	Color	Turbidity	Floatables	Debris and Stains	Damage to Outfall Structures	Vegetation	pH	Total Dissolved Solids
hemical	Manufacturer									
Building Materials, Hardware, Garden Supply, and Mobile Home Dealers		N/A	Brown to Black	Low	Some Seeds, Plant Parts, Dirt, Sawdust, or Oil	Light Brown	Low	Normal	Normal	Low
53	General Merchandise Stores	N/A	N/A	N/A	N/A	N/A	Low	Normal	Normal	Low
54	Food Stores	Spoiled Produce, Rancid, Sour	Various	Low	Fragments of Food, Decaying Produce Light		Low	Flourish	Normal	Low
65	Automotive Dealers & Gasoline Service Stations	Oil or Gasoline	Brown to Black	Moderate	Oil or Gasoline	Brown	Low	Inhibited	Normal	Low
56	Apparel & Accessory Stores	N/A	N/A	Low	N/A	N/A	Low	Normal	Normal	Low
57	Home Furniture, Furnishings, & Equipment Stores	N/A	N/A	Low	N/A	N/A	Low	Normal	Normal	Low
58	Eating and Drinking Places	Spoiled Foods, Oil & Grease	Brown to Black	Low	Spoiled or Leftover Food	Brown	Low	Normal	Normal	Low
Coal Steam Electric Power		N/A	Brown to Black	High	Coal Dust	Black Emorphous Powder	Low	Normal	Slightly Acidic	Low
luclear S	team Electric Power	N/A	Light Brown	Low	Oil, Lubricants	Light Brown	Low	Normal	Normal	Low

Table 2. Interpretations of Physical Observation Parameters and Potential Associated Flow Sources

Physical Observation Parameter	Description							
Odor - Most strong odor	s, especially gasoline, oils, and solvents, are likely associated with high responses to							
the toxicity screening	test. Typical obvious odors include: gasoline, oil, sanitary wastewater, industrial							
	chemicals, decomposing organic wastes, etc.							
Sewage	Smell associated with stale sanitary wastewater, especially in pools near outfall							
Sulfide (rotten eggs)	Industries (e.g. meat packers, canneries, dairies, etc.; and stale sanitary wastewater)							
Petroleum/Gas	Petroleum refineries or facilities associated with vehicle maintenance and operation or petroleum product storage							
Chlorine	Laundries, paper mills, textile bleaching, swimming pool, or other potable water source							
Rancid-sour	Food preparation facilities (e.g. restaurants, hotels, etc.)							
Color – Important indica	tor of inappropriate industrial sources. Industrial dry weather discharges may be of							
	lors, but dark colors such as brown, gray, or black are most common.							
Yellow	Chemical, textile, and tanning plants							
Brown	Meat packers, printing plants, metal works, stone and concrete works, fertilizer application, and petroleum refining facilities							
Green	Chemical plants and textile facilities							
Red	Meat packers							
Gray	Dairies							
Orange	Iron staining due to construction or other land altering activities							
	d by the degree of gross contamination. Dry weather industrial flows with moderate while highly turbid flows can be opaque. High turbidity is often a characteristic of undiluted dry weather industrial discharges. Sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive							
	dealers Food processors, lumber mills, metal operations, and pigment plants							
Opaque								
	taminated flow may contain floating solids or liquids directly related to industrial or ollution. Floatables of industrial origin may include animal fats, spoiled food, oils, solvents, sawdust, foams, packing materials, or fuel.							
Oil Sheen	Petroleum refineries or storage facilities and vehicle service facilities							
Sewage	Sanitary wastewater							
<u>Deposits and Stains</u> – Refe stains often will contain fr deposits that contain fragr	er to any type of coating near the outfall and are usually of a dark color. Deposits and agments of floatable substances. These situations are illustrated by the grayish-black ments of animal flesh and hair, which often are produced by leather tanneries, or the powder that commonly coats outfalls due to nitrogenous fertilizer, wastes.							
Sediment	Construction site erosion							
Oily	Petroleum refineries or storage facilities and vehicle service facilities							
materials coming from vari chemical dyes and inorga	surrounding an outfall may show the effects of industrial pollutants. Decaying organic ious food product wastes would cause an increase in plant life, while the discharge of inic pigments from textile mills could noticeably decrease vegetation. It is important erse scouring effects of high stormwater flows on vegetation with highly toxic dry weather intermittent flows.							
Excessive growth	Food product facilities							
Inhibited growth	High stormwater flows, beverage facilities, printing plants, metal product facilities, drug manufacturing, petroleum facilities, vehicle service facilities and automobile dealers							

Physical	Observation
Par	ameter

Description

<u>Damage to Outfall Structures</u> — Another readily visible indication of industrial contamination. Cracking, deterioration, and spauling of concrete or peeling of surface paint occurring at an outfall are usually caused by severely contaminated discharges, usually of industrial origin. These contaminants are usually very acidic or basic in nature. Primary metal industries have a strong potential for causing outfall structural damage because their batch dumps are highly acidic. Poor construction, hydraulic scour, and old age may also adversely affect the condition of the outfall structure, which are not indications of upstream contaminating entries.

Concrete cracking	Industrial flows
Concrete spauling	Industrial flows
Peeling paint	Industrial flows
Metal corrosion	Industrial flows

Table 3 can be used to identify industries in each drainage area most likely to contribute non-stormwater entries into the storm drainage system. The categories considered in this table include loading and unloading of dry bulk or liquid materials, outdoor storage or processing, water usage (cooling and process waters), dust or particulate generating processes, and illicit or inadvertent industrial connections. The likelihood of an industry producing dry weather or wet weather discharges in each of these categories was rated on the basis of high (H), moderate (M), or low (L) potential and not applicable (N/A) if there was no relationship evident.

Source: Brown, Edward, Caraco, Deb, and Pitt, Robert. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. USEPA. Washington, DC, 2004.

Table 3. Examples of Potential Sources of Industrial Non-Stormwater Entries Into the Storm Drainage System

	Ind	ustrial Categories	Loading/Unloading		Outdoor	Wate:	r Usage	Particle	Illicit/	
Major Class.	SIC Group	Industrial Description	Dry Bulk	Liquid	Storage/ Processing	Cooling	Process	Generation Process	Inadvertent Connections	
Primary	Industrie									
20		Food & Kindred Products								
20	201	Meat Products	Н	L	Н	Н	н	L	Н	
20	202	Dairy Products	H	Н	N/A	Н	H .	N/A	Н	
20	203	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties	н	н	н	H	Н	М	н	
20	204	Grain Mill Products	Н	Н	L	H	Н	H	н	
20	205	Bakery Products	Н	M	N/A	N/A	Н	M	L	
20	206	Sugar & Confectionery Products	Н	M	N/A	L	М	Н	L	
20	207	Fats & Oils	Н	Н	N/A	M	н	N/A	М	
20	208	Beverages	Н	Н	N/A	Н	H	M	L	
21		Tobacco Products	Н	M	N/A	N/A	М	Н	М	
22		Textile Mill Products	Н	L	N/A	Н	Н	M	н	
23		Apparel & Other Finished Products Made From Fabrics & Similar Materials	H	L	N/A	N/A	М	М	L	
Materia	al Manufac	ture								
24		Lumber & Wood Products, Except Furniture	н	L	• н	N/A	М	н	L	
25		Furniture & Fixtures	Н	М	N/A	N/A	L	М	L	
26		Paper & Allied Products	Н	Н	н	Н		Н	Н	
27		Printing, Publishing, & Allied Industries	н	М	N/A	N/A M		н	L	
31		Leather & Leather Products	Н	H	L	Ļ	Н	Н	Н	
32		Stone, Clay, Glass, & Concrete Products	н	М	н	L	н	н	L	
33		Primary Metal Industries	Н	М	Н	н	Н	H	Н	
34		Fabricated Metal Products, Except Machinery & Transportation Equipment	н	н	L	н	н	Н	н	
37 Transportation Equipment		L	Н	L	Н	Н	L	н		
Chemic	al Manufa	cture								
28	Chemica	ls & Allied Products								
	281	Industrial Inorganic Chemicals	н	Н	N/A	Н	Н	Н	Н	
	282	Plastics Materials & Synthetic Resins, Synthetic	н	Н	L	н	М	L	н	

	Ind	ustrial Categories	Loading/t	Unloading	Outdoor	Wate	r Usage	Particle	Illicit/	
Major Class.	SIC Group	Industrial Description	Dry Bulk	Liquid	Storage/ Processing	Cooling	Process	Generation Process	Inadvertent Connections	
	283	Drugs	L	L	N/A	Н	М	L	L	
	284	Soaps, Detergents, & Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	Н	н	N/A	Н	Н	Н	Н	
	285	Paints, Varnishes, Lacquers, Enamels & Allied Products	н	н	N/A	L	н	н	L	
	286	Industrial Organic Chemicals	н	Н	N/A	н	Н	Н	М	
	287	Agricultural Chemicals	L	L	N/A	Н	Ļ	L	L	
29	Petroleu	m Refining & Related Industries								
	291	Petroleum Refining	L	н	Н	н	L	N/A	Н	
	295	Asphalt Paving & Roofing Materials	н	Н	н	N/A	M	М	L	
30		Rubber & Misc. Plastic Products	Н	Н	N/A	Н	H	Н	М	
Transpo	rtation &	Construction								
15		Building Construction General Contractors & Operative Builders	м	L	н	N/A	L	н	L	
16		Heavy Construction Other Than Building Construction Contractors	м	ι	н	N/A	L	н	L	
Retail										
52		Building Materials, Hardware Garden Supply, & Mobile Home Dealers	н	L	н	N/A	L	N/A	L	
53		General Merchandise Stores	н	М	Ļ	N/A L		N/A	L	
54		Food Stores	H	Н	N/A	N/A_	M	L	L	
55		Automotive Dealers & Gasoline Service Stations	н	н	н	N/A	М	L	М	
56		Apparel & Accessory Stores	Н	L	N/A	N/A	L	N/A	L	
57		Home Furniture, Furnishings, and Equipment Stores	н	L	L	N/A	L	N/A	L	
58		Eating & Drinking Places	Н	М	N/A	N/A	М	N/A	М	
Other										
	T	Coal Steam Electric Power	Н	Ļ	Н	Н	L	Н	Ļ	
-		Nuclear Steam Electric Power	N/A	L	N/A	Н	L	N/A	N/A	

The industrial categories listed in Table 3 were defined according to the 1987 Standard Industrial Classification Manual codes (SIC code). The industries were classified according to six main categories. The category for "Primary Industries" includes facilities involved in the production of food products and other basic goods. The category of "Material Manufacturing" includes those industries producing materials such as lumber, paper, glass, and leather. Similarly, the "Chemical Manufacturing" category includes those industries making products such as plastics, paints, detergents, fertilizers, pesticides, and other related substances. "Transportation and Construction" primarily concerns the discharge of contaminants from building or other types of outdoor development. The "Retail" category includes establishments engaged in the selling of merchandise or offering merchandise related services. Finally, all other industries, which did not fit into any of the above classifications, were placed into an "Other" category. Those industries, which are not specifically listed, should have characteristics resembling the industries of the major groups with which they are classified by SIC code.

High potential (H)

Moderate potential (M),

Low potential (L)

Potential not applicable (N/A) if no relationship evident.

Source: Brown, Edward, Caraco, Deb, and Pitt, Robert. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. USEPA. Washington, DC, 2004.

Table 4. Listing of Industrial Related Chemicals

Chemical	Industry								
Acetic Acid	Acetate rayon, pickle and beetroot manufacture								
Alkalines	Cotton and straw kiering, cotton manufacture, mercerizing, wool scouring, and laundries								
Ammonia	Gas, coke, and chemical manufacture								
Arsenic	Sheep-dipping and felt mongering								
Chlorine	Laundries, paper mills, and textile bleaching								
Chromium	Plating, chrome tanning, and aluminum anodizing								
Cadmium	Plating								
Citric Acid	Soft drinks and citrus fruits								
Copper	Plating, pickling, and rayon								
Cyanides	Plating, metal cleaning, case-hardening, and gas manufacturer								
Fats, oils	Wool scouring, laundries, textiles, and oil refineries								
Fluorides	Gas, coke, and chemical manufacturer, fertilizer plants, transistor manufacturer, metal refining, ceramic plants, and glass etching								
Formalin	Manufacture or synthetic resins and penicillin								
Hydrocarbons	Petrochemicals and rubber factories								
Hydrogen Peroxide	Textile bleaching, and rocket motor testing								
Lead	Battery manufacture, lead mining, paint manufacture, and gasoline manufacture								
Mercaptans	Oil refining, and pulp mills								
Mineral Acids	Chemical manufacture, mines, Fe and Cu pickling, brewing, textiles, photo-engraving, and battery manufacture								
Nickel	Plating								
Nitro Compounds	Explosives and chemical works								
Organic Acids	Distilleries and fermentation plants								
Phenois	Gas and coke manufacture, synthetic resin manufacture, textiles, tanneries, tar, chemical, and dye manufacture and sheep-dipping								
Silver	Plating, and photography								
Starch	Food, textile, and wallpaper manufacture								
Sugars	Dairies, foods, sugar refining, and preserves								
Sulfides	Textile, tanneries, gas manufacture, and rayon manufacture								
Sulfites	Wood process, viscose manufacture, and bleaching								
Tannic Acid	Tanning, and sawmills								
Tartaric Acid	Dyeing, wine, leather, and chemical manufacture								
Zinc	Galvanizing, plating, viscose manufacture, and rubber process								

Source: Van der Leeden, et al., 1990

Table 5: The 3 General Categories of Stormwater Pollutants and Discharges

Pathogenic and Toxic Pollutants

Pathogenic and toxic pollutants should be considered the most severe since contact or consumption of stormwater contaminated by these pollutants could cause illness and significant water treatment problems for downstream users. These pollutants may originate from:

- Sanitary, commercial, and industrial wastewater,
- Inappropriate household toxicant disposal,
- · Automobile engine de-greasing, and
- Excessive use of chemicals (pesticides, herbicides, and fertilizers).

Pathogenic or toxic, and nuisance pollutants should be prioritized in a manner that ensures prompt action in the source identification process as these types of pollutants have the most harmful effects to the environment. In areas containing no industrial or commercial sources, sanitary wastewater is probably the most severe dry-weather contaminating source of storm drain flows. The following parameters can be used for quantifying the sanitary wastewater components of the treated potable water portion:

- Surfactant analysis may be used in determining the presence of sanitary wastewaters.
 However, surfactants present in water originating from potable water sources could indicate
 sanitary wastewaters, laundry wastewaters, car washing wastewater, or any other waters
 containing surfactants. If surfactants are not present, then the potable water could be
 relatively uncontaminated (potable waterline leaks or irrigation runoff).
- Sanitary wastewaters often exhibit predictable trends during the day in flow and quality. In
 order to maximize the ability to detect direct sanitary wastewater connections into the storm
 drainage system, it would be best to survey the outfalls during periods of highest sanitary
 wastewater flows (mid to late morning hours).
- The ratio of surfactants to ammonia or potassium concentrations may be an effective indicator of the presence of sanitary wastewaters or septic tank effluents. If the surfactant concentrations are high, but the ammonia and potassium concentrations are low, then the contaminated source may be laundry wastewaters. Conversely, if ammonia, potassium, and surfactant concentrations are all high, then sanitary wastewater is the likely source. Some researchers have reported low surfactants in septic tank effluents. Therefore, if surfactants are low, but potassium and ammonia are both high, septic tank effluent may be present.
- Obviously, odor and other physical characteristics, e.g. turbidity, coarse and floating solids, foaming, color, and temperature would also be very useful in distinguishing sanitary wastewater from wash water or laundry wastewater sources. However, these indicators may not be very obvious for small levels of sanitary wastewater contamination.

Nuisance Pollutants

Nuisance pollutants contribute aquatic life threatening conditions to the storm drainage system. These pollutants can cause excessive dissolved oxygen depletions, tastes, odors, and colors in downstream water supplies, algal blooms, offensive floatables, and noticeably turbid water. These pollutants may originate in residential areas from:

- Sanitary wastewaters
- Laundry wastewaters
- Lawn irrigation runoff
- Automobile wash waters
- Construction site dewatering
- Washing of concrete ready-mix trucks

Clean water

Clean water discharged through a storm drainage system is commonly found during an outfall inventory. Clean water discharges can originate from the following:

- Natural springs in urban areas that have been piped to a nearby creek or stream,
- Infiltrating groundwater, and
- Infiltration from potable waterline leak.

A number of tracer parameters may be useful for distinguishing treated potable water from natural waters:

- Major ions or other chemical/physical characteristics of the flow components can vary substantially depending upon whether the water supply sources are groundwater or surface water, and whether the sources are treated or not. Specific conductance may also serve as a rough indicator of the major water source.
- Fluoride can often be used to separate treated potable water from untreated water sources.
 Untreated water sources can include local springs, groundwater, regional surface flows or non-portable industrial waters. If the treated water has no fluoride added, or if the natural water has fluoride concentrations close to potable water fluoride concentrations, then fluoride may not be an appropriate indicator.
- Hardness can also be used as an indicator if the potable water source and the base flow are
 from different water sources. An example would be if the base flow is from hard groundwater,
 and the potable water is from softer surface supplies.
- If the concentration of chlorine is high, then a major leak of disinfected potable water is likely
 to be close to the outfall. Because of the rapid dissipation of chlorine in water (especially if
 some organic contamination is present) it is not a good parameter for quantifying the amount
 of treated potable water observed at the outfall.
- Water from potable water supplies (that test positive for fluorides, or other suitable tracers)
 can be relatively uncontaminated, e.g., potable waterline leakage or irrigation runoff, or
 heavily contaminated, e.g., sanitary wastewater.

Source: Brown, Edward, Caraco, Deb, and Pitt, Robert. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. USEPA. Washington, DC, 2004.

APPENDIX D: XXXXXXX CHAIN OF CUSTODY

ROGERS & CALLCOTT

CHAIN OF CUSTODY RECORD

TABORATORY SERVICES RO Box 5656, Orelinite, &C 19608 Prome 1964, 232-1250 Fix 1864) 222-6140 Physical Address Greenste, EC 20807 Orient Nome Address							F	1	1	1	7	Filtered (Yes/No) Coalec (Yes/No) Container Type (P/Q) Container Volume Sample Type (Grob/Composite) Sample Source (WW. GW. DW. Other)	
	Report Ta:						H	1	//	4	7	Sample Scurce Chlorinated (Yes/No) Lap Receipt Cl., Check	
	relephone No FAX No				Contoiners		1	11	1	1	1	Lob Receipt pH Check	
Rogers & Calicott	Ye	Time	Project No.	eription	Total Number of Cor	583			+			Preserved (Code) A-None 9-NoOH G-Berle Acid B-NNO, E-NO. H-Accept Acid C-H ₂ SO, F-Ne, S ₂ O ₂ i-	
COU NO.						PARAMETERS						COMMENTS:	
							-						
	Relinquished by (Sig.)		Received by (Sig 2) Shipper Name 40			Date/Time			KNOWN HAZARDS ASSOCIATED WITH SAMPLES				
Relinquis 3)	Relinquished by (Sig.) Date/Time		Received by (Sig ③ Shipper Name &	The control of the co			Dale/Ti	me					
Reinquis	Reinquished by (Sig.)		Received by (Sig ⑤ Shipper Name &				Date/Th	Date/Time			nperature of blank or representative sample it time of collection		
Seat #	Q	t'chd byO	Recyd, Intoct by			chd	yO Rec	vd. Inla	L by (A	time of tab receiptC	

APPENDIX E: HACH SENSION 2 PH/ISE METER PROCEDURES

Procedures for Operation of the SensiON 2 pH/ISE meter:

- Connect the electrode to the SensiON 2 pH/ISE meter.
- 2. Turn on the meter by pressing I/O. Press pH MV until the display shows pH.
- 3. Press Setup. Press the up arrow three times. Press ENTER to move to the desired number of decimal places, then EXIT to leave setup.
- 4. In two 50mL beakers or cups, prepare buffers of 4.00 and 7.00, or 7.00 and 10.00. (Note that the sample should fall within the range of the calibration buffers).
- 5. Press CAL. The display will show: Standard 1?
- 6. Rinse electrode with deionized water and blot dry.
- 7. Place the electrode in the pH 7.00 buffer. Press ENTER. The display shows: Stabilizing
- 8. When a stable pH is determined, the display will show **Standard 2?** Remove the electrode from the cup. Rinse and blot dry.
- 9. Place the electrode in the 4.00 or 10.00 pH buffer and press ENTER.
- 10. After the last calibration point has stabilized and the display reads Standard 3?, press EXIT. (Note that a three-point calibration can be performed instead of a two-point. Instead of exiting at Standard 3? Enter the value for the third standard and repeat steps H and J).
- 11. The display will show Store?. Press ENTER to store the calibration or EXIT to leave the calibration mode without storing the values. Note the slope value displayed on the calibration screen; the electrode is responding properly if the calibration slope is 58+/- 3 mV per pH unit.
- 12. Rinse the electrode with deionized water followed by a small amount of sample and blot dry.
- 13. Collect enough sample volume in a container to immerse the electrode in the sample. Gently stir the electrode in the sample. pH samples must be analyzed within fifteen minutes of collection.
- 14. Store or record the pH and temperature readings when they stabilize.
- 15. Store the electrode properly when not in use.
- 16. Intermittent Storage: Between uses, store the electrode in solutions of similar ionic strength and pH to the samples of interest. Carefully rinse the electrode before use to prevent sample contamination.
- 17. Overnight Storage: Store the electrode in Hach Electrode Storage Solution to keep the electrode hydrated.
- 18. Shelf Storage: For long-term storage, store the electrode dry. For faster reconditioning in the future, wet the cotton/wool ball located in the vinyl storage cap with storage solution, Place the cap over the electrode. This will help keep the bulb hydrated.

APPENDIX F: HACH DR2800 PORTABLE SPECTROPHOTOMETER Total Chlorine Test Procedure

Copper Test Procedure

Phenols Test Procedure

Anionic Surfactants (Detergents) Test Procedure

Procedures for Operation of the Hach DR2800 Portable Spectrophotometer

The complete DR2800 Procedures Manual can be found on the Hach website at: http://www.hach.com/dr-2800-portable-spectrophotometer-with-lithium-ion-battery/product-downloads?id=7640439012&callback=qs.

Total Chlorine (0.02 to 2.00 mg/L) Test Procedure

Use the Hach DR2800 Portable Spectrophotometer to test for Total Chlorine (0.02 to 2.00 mg/L). (If using an equivalent meter, refer to the instruction manual for procedure).

- 1. Press STORED PROGRAMS.
- 2. Select the test.
- 3. Fill a square sample cell with 10 mL of sample.
- 4. Prepared Sample: Add the contents of one DPD Total Chlorine Powder Pillow to the sample cell. Swirl the sample cell for 20 seconds to mix.
- 5. Press TIMER>OK. A 3-minute reaction period will begin. Perform steps 6 and 7 during this time period.
- 6. Blank Preparation: Fill a second square sample cell with 10-mL of sample.
- 7. Wipe the blank sample cell and insert it into the cell holder with fill line facing right. Press ZERO. The display will show: 0.00 mg/L CL₂
- 8. Within 3 minutes after the timer expires, wipe the blank sample cell and insert it into the cell holder with fill line facing right. Press READ. Results are in mg/L CL₂

*Note: DPD reagent packets deteriorate in the presence of moisture. The packets should be discarded if they have caked or turned brown.

Total Chlorine (0.1 to 10.0 mg/L) Test Procedure

Use the Hach DR2800 Portable Spectrophotometer to test for Total Chlorine (0.1 to 10.0 mg/L). (If using an equivalent meter, refer to the instruction manual for procedure).

- 1. Press STORED PROGRAMS.
- 2. Select the test.
- 3. Insert Adapter B.
- 4. Fill a square sample cell to the 5-mL line with sample.
- 5. Wipe the cell and insert it into the cell holder with the 1-cm (flat) path in line with the indicator arrow on the adapter.
- 6. Press ZERO. The display will show: 0.0 mg/L CL₂
- Remove the cell and add the contents of one DPD Total Chlorine Powder Pillow for 25-mL samples to the sample. Cap and shake the cell for 20 seconds to dissolve reagent. A pink color will develop if chlorine is present.
- 8. Press TIMER>OK. A 3-minute reaction period will begin.
- 9. Insert the prepared sample into the cell holder with the 1-cm (flat) path in line with the indicator arrow on the adapter. Press READ. Results are in mg/L CL₂

Copper (1 to 210 µg/L) Test Procedure

Use the Hach DR2800 Portable Spectrophotometer to test for Copper (1 to 210 µg/L). (If using an equivalent meter, refer to the instruction manual for procedure).

- 1. Press STORED PROGRAMS.
- 2. Select the test.
- 3. Fill two square sample cells with 10 mL of sample.
- 4. Blank Preparation: Add the contents of one Copper Masking Reagent Powder Pillow to one of the sample cells. Swirl to dissolve. This cell will be the blank.
- 5. Add the contents of one Porphyrin 1 Reagent Powder Pillow to each sample cell.
- 6. Swirl to dissolve.
- 7. Add the contents of one Porphyrin 2 Reagent Powder to each sample cell.
- 8. Swirl to dissolve. If copper is present, the sample will momentarily turn blue, then return to yellow.
- 9. Press TIMER>OK. A 3-minute reaction period will begin.
- 10. When the timer expires, insert the blank into the cell holder with the fill line facing right.
- 11. Press ZERO. The display will show: 0 µg/L CU
- 12. Insert the prepared sample into the cell holder with the fill line facing right. Press READ. Results are in µg/L CU

Copper (0.04 to 5.00 mg/L) Test Procedure

Use the Hach DR2800 Portable Spectrophotometer to test for Copper (0.04 to 5.00 mg/L). (If using an equivalent meter, refer to the instruction manual for procedure).

- 1. Press STORED PROGRAMS.
- 2. Select the test.
- 3. Prepared Sample: Fill a square sample cells with 10 mL of sample.
- 4. Add the contents of one CuVer® 1 Copper Reagent Powder Pillow to the sample cell (the prepared sample). Swirl sample cell to mix. Use a CuVer 2 Copper Reagent Pillow for samples containing high levels of aluminum, iron, and hardness. A 25-mL sample cell is required.
- 5. Press TIMER>OK. A 2-minute reaction period will begin.
- Blank Preparation: When the time expires, fill a second square sample cell with 10 mL of sample.
- 7. Insert the blank into the cell holder with fill line facing right. Press ZERO. The display will show: 0 mg/L CU
- 8. Within 30 minutes after the timer expires, insert the prepared sample into the cell holder with the fill line facing right. Press READ. Results are in mg/L CU

Phenois Test Procedure

Use the Hach DR2800 Portable Spectrophotometer to test for Phenols. (If using an equivalent meter, refer to the instruction manual for procedure).

- Press STORED PROGRAMS.
- 2. Select the test.
- 3. Measure 300 mL of deionized (DI) water in a 500-mL graduated cylinder.
- 4. Blank Preparation: Pour the measured DI water into a 500-mL separatory funnel.
- 5. Measure 300 mL if sample in a 500-mL graduated cylinder.
- 6. Prepared Sample: Pour the measured sample into another 500-mL separatory funnel
- 7. Add 500 mL of Hardness Buffer to each separatory funnel. Stopper and shake to mix.
- 8. Add the contents of one Phenol Reagent Powder Pillow to each separatory funnel. Stopper and shake to dissolve.
- Add the contents of one Phenol 2 Reagent Powder Pillow to each separatory funnel. Stopper and shake to dissolve.
- 10. Add 30 mL of chloroform to each separatory funnel. Stopper each funnel.
- 11. Invert each funnel and temporarily vent. Shake each funnel briefly and vent. Then vigorously shake each funnel for a total of 30 seconds (venting if necessary).
- 12. Remove the stoppers. Allow both funnels to stand until the chloroform settles to the bottom of the funnel. The chloroform layer will be yellow to amber if phenol is present.
- 13. Insert a large, pea-sized cotton plug into the deliver tube of each funnel. Filter the chloroform layer through the cotton removes suspended water or particles. The volume of the chloroform extract will be about 25 mL.
- 14. Drain the chloroform layers into separate sample cells (one for the blank and one for each sample). Stopper the cells. The water phase contains chloroform, which is hazardous. Dispose of properly.
- 15. Wipe the blank and insert it into the cell holder with the fill line facing right. Press ZERO. The display will show: 0.000 mg/L Phenol
- 16. Wipe the prepared sample and insert it into the cell holder with the fill line facing right. Press READ. Results are in mg/L Phenol

^{**}Note: When venting a separatory funnel, be sure to point the funnel away from yourself and others.

Anionic Surfactants (Detergents) Test Procedure

Use the Hach DR2800 Portable Spectrophotometer to test for Anionic Surfactants (Detergents). (If using an equivalent meter, refer to the instruction manual for procedure).

- 1. Press STORED PROGRAMS.
- Select the test.
- 3. Fill a clean 500-mL graduated cylinder to the 300 mL mark with sample. Pour the sample into a clean 500-mL separatory funnel.
- 4. Add 10 mL of Sulfate Buffer Solution. Stopper the funnel. Shake the funnel for five seconds.
- 5. Add the contents of one Detergents Reagent Powder Pillow to the funnel. Stopper the funnel and shake until the powder dissolves completely.
- 6. Add 30 mL of benzene to the funnel. Stopper the funnel and shake gently for one minute.
- 7. Place the separatory funnel in a support stand.
- 8. Press TIMER>OK. A 30-minute reaction period will begin.
- 9. After the timer expires, remove the stopper and drain the bottom water layer. Discard this layer.
- 10. Prepared Sample: Drain the top benzene layer into a clean 25-mL sample cell. Do not filter the benzene layer before color measurement. Filtration removes the blue color.
- 11. Blank Preparation: Fill another sample cell to the 25-mL mark with pure benzene.
- 12. Insert the blank into the cell holder with the fill line facing right.
- 13. Press ZERO. The display with show: 0.000 mg/L LAS
- 14. Insert the prepared sample into the cell holder with the fill line facing right.
- 15. Press READ. Results are in mg/L LAS

Cleaning Procedures

- 1. Rinse with tap water.
- 2. Scrub with non-phosphate detergent and tap water rinse.
- 3. Tap water rinse.
- 4. Rinse with deionized water.
- 5. Air dry.

APPENDIX G: ENVIRONMENTAL ENGINEERING STANDARD OPERATING PROCEDURE REGARDING STORMWATER ILLICIT DISCHARGE COMPLAINTS

Date:

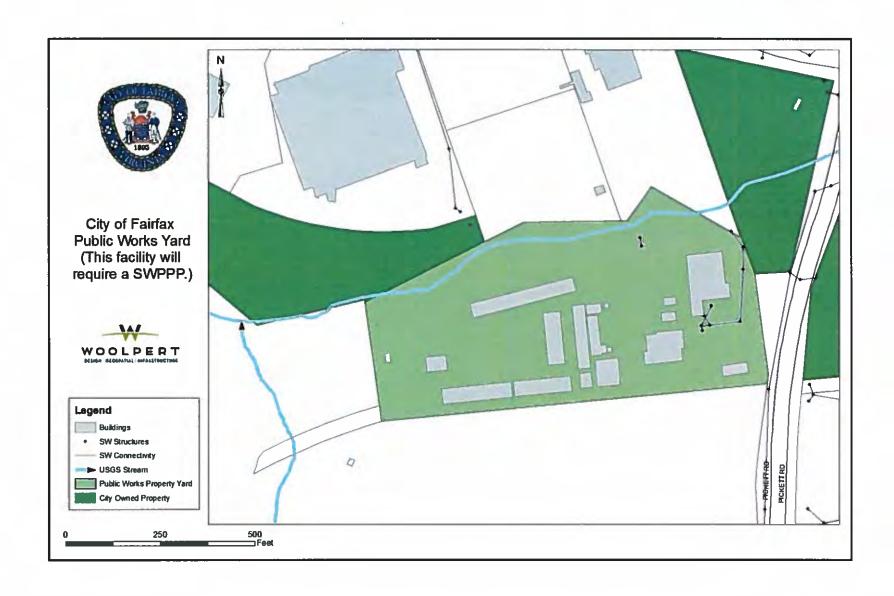
November 14, 2012

Subject: Environmental Engineering Standard Operating Procedure Regarding Stormwater Illicit Discharge Complaints

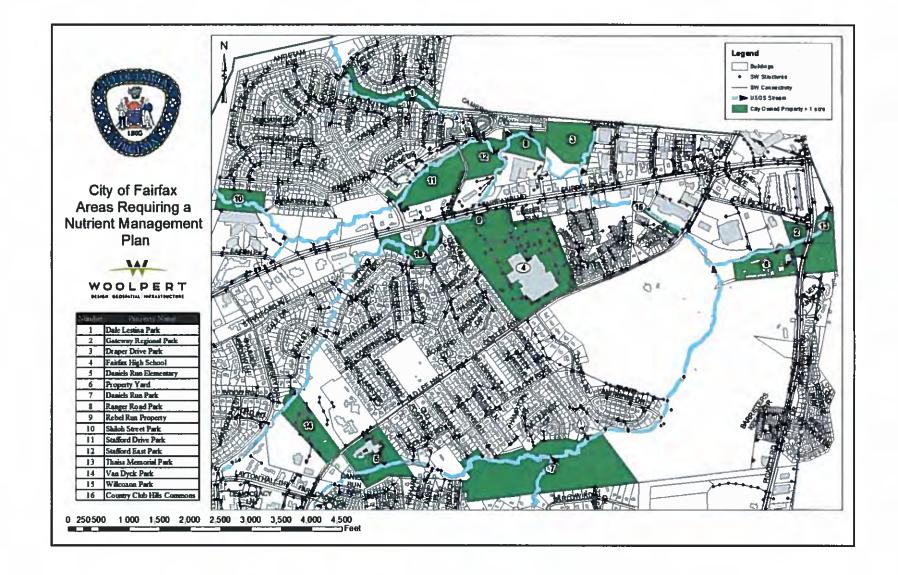
When a call is received regarding an Illicit Discharge complaint from citizens, the following procedures are generally to be followed:

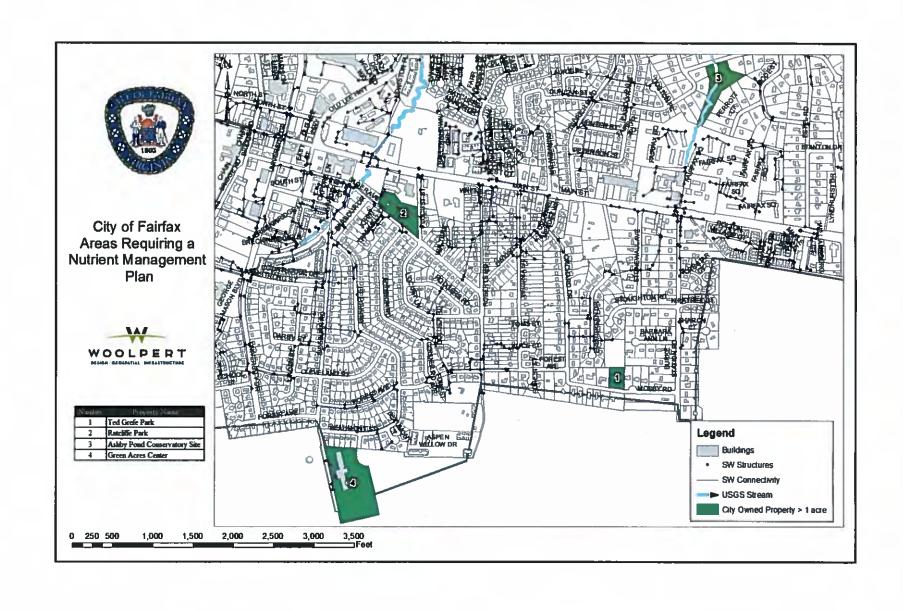
- Staff asks the caller for the date and time that the illicit discharge was observed, who was seen
 discharging the material, the water color and odor if possible. The address and location of complaint
 is determined. Pictures are requested if available.
- 2. The property is located on the City's GIS mapping system, various layers including contours, aerial, storm sewer systems, and streams are turned on, a map is printed to aid in the investigation.
- 3. A site visit is conducted to access the Illicit Discharge complaint the same day if possible, but at most within 48 hours. A new folder should be created with the supporting information and pictures taken and filed on the City's Network: F:\SHARED\environmental engineering\Stormwater\MS4\MCM's\Illicit Discharge Detection and Elimination\Illicit Reports
- 4. Once the downstream discharge point is located, staff to review maps and determine potential contributing pipes and stream tributaries.
- 5. Perform dry weather screening to determine potential illicit discharge.
- 6. Investigate each of the potential contributing stormwater systems.
- 7. If the discharge location is found, the person responsible for the illicit discharge is interviewed. If the illicit discharge material is identifiable, Staff should review the "list of lists" to determine minimum reportable discharge quantity.
- 8. If the discharge is considered illicit, then Staff issues the person a Notice of Violation.
- 9. For a second offense, the person is issued a fine and a citation that requires them to appear in court. Contact the Zoning Coordinator, Kim Jones 864-467-4557) to establish a court date/time.
- 10. Staff requires that the illicit discharge material be removed from the Stormwater conveyance system or stream. For example, if an industrial cleaning solution is discharged to the Stormwater conveyance system, then the downstream system will be plugged and the system cleaned and vacuumed out by the person/company responsible for the illicit discharge. In the event of a significant discharge which may a causes a detriment to the ecosystem, staff may choose to have operations assist with the clean-up and assess costs to violator.
- 11. If the illicit discharge incident qualifies as reportable, SCDHEC EQC office is contacted at (864) 241-
- 12. The incident should be entered into the spreadsheet, Illicit Discharge Report located at F:\SHARED\environmental engineering\Stormwater\MS4\MCM's\Illicit Discharge Detection and Elimination

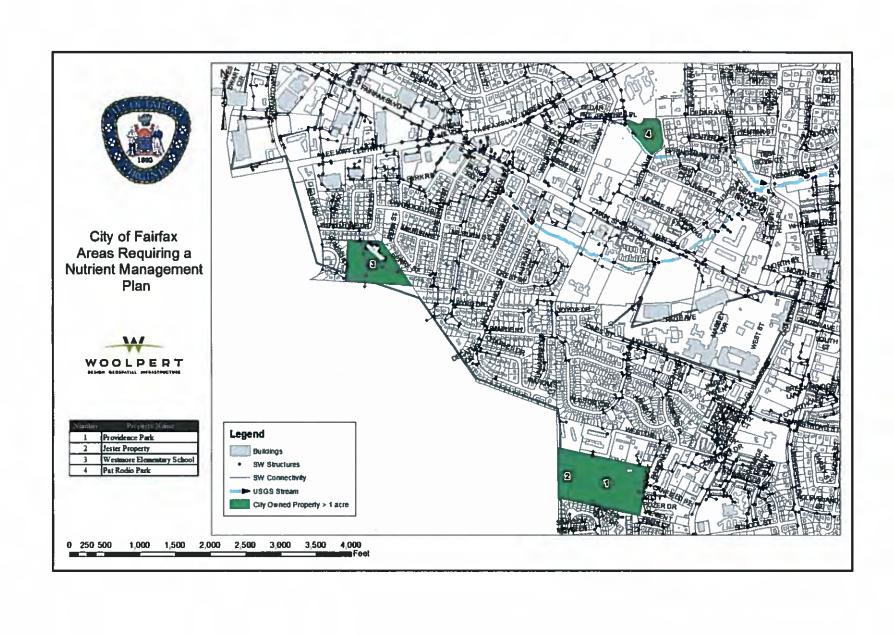
SECTION II
Identification of Locations Requirement SWPPPs (MCM 6)

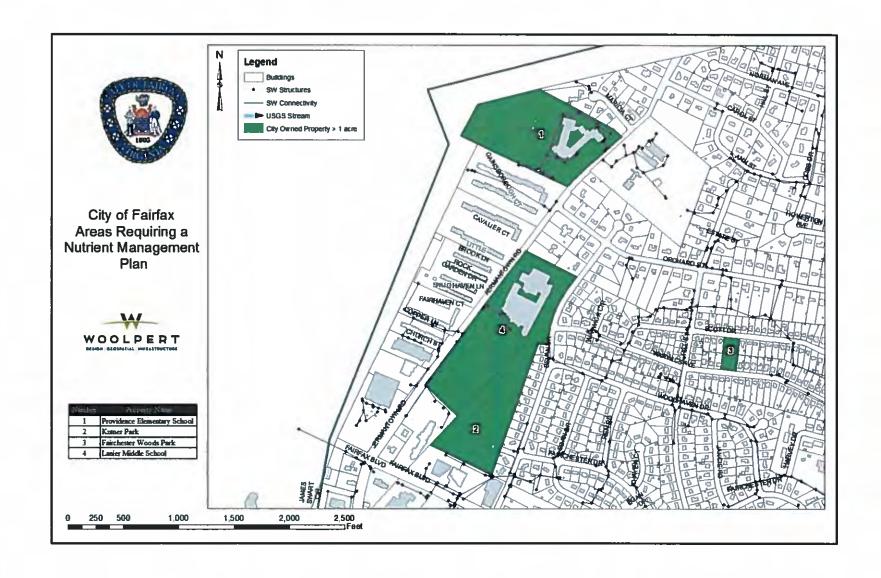


SECTION III Nutrient Management Plan Locations (MCM 6)









SECTION IV Training Schedule and Program (MCM 6)

Municipal Training and Education Programs	Brief Description of Training Program Materials	Schedule for Training	Participants
Pollution prevention and good housekeeping measures			
a) Developing inspection and maintenance procedures and schedules for stormwater BMPs		2014-2015	Public Works Operations staff
b) Implementing BMPs to treat pollutants from transportation infrastructure, maintenance areas, storage yards, sand and salt storage areas, and waste transfer stations		2014-2015	Public Works Engineering staff
c) Establishing procedures for properly disposing of pollutants removed from MS4		2014-2015	Public Works Operations staff
d) Identifying ways to incorporate water quality controls into new and existing flood management projects		2014-2015	Public Works Engineering staff
2) Information about Operation and Maintenance of Structural BMPs	d)		
Four key BMPs:			
a) Ordinances for Post construction runoff		2014-2015	Public Works Engineering and City Planning staff
b) Post-construction Plan Review		204-7015	Public Works Engineering and City Planning staff
e) BMP Inspection and Maintenance		2014-2015	Public Works Operations staff
d) Low Impact Development (LID) and Other Green Designs		2014-2015	Public Works Engineering staff
3) Spill Response and Prevention		2014-2015	Public Works Engineering, City Planning staff, and Emergency Response Teams
4) Information on Stormwater Pollution Prevention Plans (SWPPPs) for municipal facilities		2014-2015	Public Works Engineering staff
5) BMPs recommended for use in the field to prevent contaminated discharges		2014-2015	Public Works Engineering, City Planning staff, and Emergency Response Teams
6) Training on recognizing, tracking, and reporting illicit discharges		2014-2015	Public Works Engineering, City Planning staff, and Emergency Response Teams

SECTION V Annual Report Submittals

ANNUAL REPORT SUBMITTALS

Submitted October 1, 2014.

SECTION VI Ordinance and TMDL Review

ORDINANCE AND TMDL REVIEW

The City of Fairfax has hired an engineering firm to review their ordinances and to create a TMDL Action Plan, due June 30, 2015, in order to achieve their waste load allocation requirements by the target dates.

SECTION VII Five Year Budget Recommendations to Meet Permit Requirements

FIVE YEAR BUDGET RECOMMENDATIONS TO MEET PERMIT REQUIREMENTS

Since the program itself is still in the developmental stages, budget recommendations will be made as programs become finalized.